THE JOURNAL

OF THE

American Medical Association.

CONTAINING

THE OFFICIAL RECORD OF ITS PROCEEDINGS,

AND THE

REPORTS AND PAPERS PRESENTED IN THE SEVERAL SECTIONS

EDITED FOR THE ASSOCIATION BY N. S. DAVIS, M. D., LL. D.

VOLUME IV.

1885.

CHICAGO:
PRINTED AT THE OFFICE OF THE ASSOCIATION
1885.

“*The American Medical Association, though formally accepting and publishing the reports of the various Standing Committees (and Sections), holds itself wholly irresponsible for the opinions, theories, or criticisms therein contained, except otherwise decided by special resolution*”—TRANSACTIONS, 1851

—THE—

Journal of the American Medical Association.

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PUBLISHED WEEKLY

VOL. IV CHICAGO, JANUARY 3, 1885 No. 1

ORIGINAL ARTICLES

FRAGMENTARY COMMENTS ON SOME OF THE PRINCIPAL METHODS OF OPERATION FOR "STONE IN THE BLADDER."

With Special Reference to Allarton's Method, Also in Combination with Lithotripsy, Urethro-Lithotripsy, Urethrotomia Lithotriptica, Including Besides Critical Remarks Upon the Discussion of the Progress Made in Lithotripsy and "Lithotomy" at the Late International Medical Congress held in London, England, and divers other subjects comprising the Urinary Organs.

BY M. SCHUPPERT, M.D., OF NEW ORLEANS, LA.

Of the present essay, though written over two years ago, I have had so far no inducement to make any important alterations of its contents, and will therefore offer it for whatever it may be worth.

In conveying my views on some of the main operative methods for the removal of vesical calculi, I was induced principally by the success I had met, with Allarton's urethrotomy, and the failure on the other hand of the International Medical Congress held at London, England, to give us a better method. It was the disappointment I felt from the discussion on the subject by that phenomenal gathering of professional celebrities, a concourse of genius and talent more prodigious than the world had probably ever seen before, which led to my critical remarks. Amongst the chief subjects selected by that Congress for discussion, the operation for "stone in the bladder" occupied a prominent place. Considering the presence of so many illustrious representatives of the profession, it most assuredly could not be said it was claiming too much, in expecting a final settlement of the subject in question, either accepting and approving what so far had been accomplished as satisfactory, or giving us instead new and better methods. Nevertheless, if we except that single shining proof of American ingenuity, Bigelow's method of lithotripsy, the result of the discussion of that deliberating assembly on the subject in question was a most barren one, and in respect of the diverse methods of cystotomy, far from conclusive. The congressional success had evidently suffered from the preponderating influence of the address of its presiding officer.

Exploring the field of the operative technic of the diverse methods of the operation for stone, I met with many existing deficiencies which wanted reform, but it was most the unjust dereliction of Allarton's urethrotomy, that long since reconstructed, though repeatedly mistaken, or, converted and improperly disregarded operation, which induced me, and without prejudice, to again assign to the front rank that same *pærineal median urethrotomy of Allarton,* a method which comprises in itself all the elements rendering an operation valuable, and which if combined with lithotripsy will fullfil every demand required to establish its superiority. Such a method deserves more than a superficial mentioning. Its position is secured, whether the designation or name I have applied, is adopted or improved upon.

The essay will also comprise an analysis of opinions, delivered on the subject in question by members of the International Congress, which will enlist some interest. I think it, moreover, proper to call attention to the importance of some of the supplementary contributions, all more or less intimately connected with the urinary organs, and which will lay open a number of sins of omission and commission. The rear of the essay will be brought up by an anomaly of the "*homo sapiens,*" but with the ingenium gone astray, an unique in surgical history.

Before entering the main subject, I think it but proper to call attention here to two frequently used terms, which seem to me erroneously selected, or misapplied, and one of them even unorthographically written, which terms call for correction, according to the truism that "an hundred years of *wrong* do not constitute a single day of *right.*" No educated linguist will coin words or terms which etymologically misrepresent an idea he wishes to inculcate. Thus is the term "*lithotomy*" used promiscuously and erroneously for the operation of stone, in which the bladder or another part of the urinary tract, is incised, whilst the etymology of the word implies instead "*cutting the stone,*" it being derived from *Λίϑος*, the stone, and *Γέμνεῖν*, to cut. It is therefore synonymous with lithotripsy, or lithotrity, from *Λίδος* and *Γριβῖν*, fatur, *Τρίψω*, to cut to pieces. We ought therefore to supplant *lithotomy* by the two terms, *cystotomy* and *urethrotomy*, cutting either the bladder, or, the urethra, for obtaining the object of freeing the bladder from stone.

The other correction comprises the term "*perinæum,*" or, "*perineal,*" which ought to be written *pærineum* and *pærineal*, in being derived from πγ̃ρχ, or, πγ̃ρις the bag, and νδιω, I dwell, designating the region between the ischiatic tuberosities, the anus and the scrotum Properly, therefore, it can only be applied in the *male*, and not in the *female* If we want a term applicable to both, to the male as well as the female, we ought to exchange the word for the term *interfemineum*, *interfemineal*, a word not derived, as some might believe, from *femina*, the woman, but which originates from *femen*, or *femur*, oris *Interfemineum* would then signify the region between the thighs, and could be used in both sexes, in the male as well as the female In many of the classical works of Livius, Lucretius, and even Plinius and Celsus, says the great anatomist Hyrtl, we meet with that term *femen* in the sense here given Thus *feminalia* and *tibialia* were used by the Romans to signify bandages around thighs and legs, as our garters So much for some corrections which speak for themselves, and ought to be adopted by every progressive mind

Among the diverse operative methods for "stone in the bladder" we might best discriminate between operations without using the knife and such where the knife has to be employed, or operations by which the stone is removed through the natural passages, with or without a previous crushing, and such in which the removal of the stone is obtained by an artificial passage which can be accomplished either by incising the urethra, or the bladder Finally we may distinguish a third method, a combination of the first two of cystotomy, or urethrotomy, with subsequent lithotripsy, of which the latter, no doubt, would be the preferable one, and which I have designated with *urethrotomia lithotriptica* (lithotriptic urethrotomy)

We would then obtain the following scheme

A *Lithotripsy*
B *Cystotomy*
1 Lateral C (pærineal lateral C)
2 Epicystotomy (E suprapubica, or sectioalta)
3 Proctocystotomy (C recto-vesicalis)
C *Urethrotomy*
1 Pærineal median Ur (Allarton's method)
2 Bi-lateral, Dupuytren's
3 Procto-urethrotomy (recto-median Ur)
D *Urethrotomia lithotriptica* *Lithotriptic urethrotomy*

It is known that the operation for stone was formerly in the hands of a certain class of specialists, called "*stone cutters*," and that it was not before the 18th century that the operation became common in good surgery The disease indicates the operation *per se*, but the selection of the method for removing the stone depends on a variety of conditions and circumstances Thus we have the nature and size of the stone, complications of the disease, state of the kidneys, of the bladder, the urethra, the urine, the age of the patient, etc, which will greatly influence the selection of the method and the time of the operation The earlier the operation is performed the better, but this is often thwarted by ignorance and failure to detect the disease Regarding the *Statistics*, I have but a few words to say Certain writers on the subject, as Sir H Thompson, of England, and others, have stated that in all cases of stone in the bladder, lithotripsy ought to be preferred "for humanity's sake" John E Erichson, the illustrious President of the late International Medical Congress, a surgeon who usually commands confidence when he makes a direct, definite statement, is of the same opinion Still his statistical mortuary reports of the two operations of cystotomy and lithotripsy, in his last edition of "Science and Art of Surgery," deserve but little credit When here Erichson says "that 4/5 of all cases in the adult were proper subjects for lithotripsy," we know very well that he based his dictum upon our known mortuary lists But if we look a little closer into these same statistical records, and the material which served in their composition, we find that the majority of those cases, which underwent the operation of lithotripsy were so called "*picked* or *selected cases*" We have therefore merely the statistics of *selected cases* before us Comparing them with the results obtained by cystotomy and urethrotomy indiscriminately chosen, and of cases operated upon often under the most unfavorable conditions, is an improper and unjustifiable proceeding

Another, and not less important point, consists in the doubts which have been uttered with regard to the accuracy of the statements of certain known specialists of our days, upon which these statistics were mainly based Thus Civiale, the known professional lithotritist of France, who once incited so great a stir amongst professional men, gives the deaths from that operation performed by him as 1 in 42 2, or, of 591 operations he will have lost but 14 (!) while the most skillful operators, in England for instance, had a mortality rate of 1 in 7 9, or, at the most favorable, 1 in 10 That such statements as those of Civiale, in the face of the known insalubrity and bad sanitary condition of the Parisian hospitals, and their equally known enormous death-rate in capital operations at Civiale's time, deserve but little credit, is obvious But to observe Civiale's statements sink to the lowest ebb of credulity, we need only compare them with those of his more candid and trustworthy cotemporary fellow citizen and colleague, the great and honest Malgaigne, whose estimates of mortality in those same hospitals of Paris were given by him as 1 in 4, and in private practice as 1 in 8 So much for statistics serving as a basis in giving preference, or superiority of the one method over the other here mentioned

Selection of the method of operation —Lithotripsy —The promise with lithotripsy totally to remove "the decomposable debris" and the "*sharp fragments*" of the crushed calculus by the aspirator of Clover, or the highly priced evacuating apparatus of Bigelow are no doubt great improvements in the operation of lithotripsy, still they should not induce us to exclusively swear allegiance to that method The danger arising from a wound so much feared, for instance, in the presence of a chronic cystitis, has lost its weight and importance under the proper administration of a thorough asepsis, or antisepsis

Lithotripsy, except if combined with urethrotomy, has lost with me a great deal of its charm, even in the hands of the ingenious Bigelow, since I have experienced the serviceable boon of *Allarton's perineal median urethrotomy* It may commonly be considered a great mistake to advance unqualified claims in favor of the superiority of a select method and give to it an unexceptional preference In surgical practice, as well as in medicine generally, it ought to be recognized as one of the elementary truths and main principles *in no disease to let one and the same treatment preponderate to the exclusion of all others* The same disease may under different circumstances require an entirely different treatment A thorough acquaintance with the diverse methods, in addition to the character of the ailment, and of the proper selection of the operation adapted to the special case, are what the surgeon ought to know and which will offer the best chances for success The surgeon, on the contrary, who thinks to appropriate every case to his favorite hobby, must turn out at the end as complete a failure as the physician committed to the same dogma The adoption of a method of operation is controlled by experience, its propriety in most instances is confirmed or refuted by its general results, and it is not uncommon that by experience views are gained widely different from those which at a former period had been recognized as true and proper The question of the propriety of performing in a given case either cystotomy, lithotripsy, or urethrotomy, or the two latter combined, is often difficult to decide, on account of the various dispositions, the condition of the individual case, or on part of the operator

One of the main objections raised by some surgeons against lithotripsy has been the fear that fragments of the crushed calculus might remain in the bladder, causing there, it was thought, *recidives* But others proved that such fear was absurd, and the irritation or pain produced by such sharp fragments would be early disclosed by the irritable bladder, so that where no complaint by the patient was uttered, all of the debris had been discharged If these views were correct, we would have to come to the conclusion that in cases where a new calculus had formed, different causes must have prevailed in its formation And indeed, micro chemical investigations about the origin of the calculus disease have confirmed that view to be the correct one Recidives happening after cystotomy, as well as after lithotripsy, have further supported this opinion, that other causes had to exist to explain the origin of a calculus We have been informed by reliable authority that in forty cases of cystotomy and lithotripsy such recidives happened twice, and in both cases after cystotomy In one instance it was a second, in the other a third time that the operation had been performed in the same individual Another referee told us " that in a case the lateral section had been performed three times—twice in the old cicatrix, without meeting any of the difficulties mentioned here, and two and three years after the first operation, when the recidives happened The stones in this case consisted of phosphates of ammonia, magnesia and lime, with urate of ammonia" (Prof Grube, of Charcow) It seems, then, that the probability of such recidives may exist wherever the patient continues to live under the same influences which were the cause of the formation of the calculus at the first time, though as to the nature of the influences we still remain in the dark

But besides the empty fear for recidives from such remaining fragments, there exists still a more serious consequence from them, though overlooked by most surgeons, or erroneously considered of little consequence Of this later

The operation of *lithotripsy*, at present known as "*Bigelow's method*," is no doubt one of the most brilliant conceptions of human genius and of modern surgery From the first efforts of its performance by Gruithousen in 1813 with his lithotripion and the three branched instrument (trois branches) of Leroy d'Etiolles in 1822, Jacobson's articulated stonebreaker in 1829, and Hurteloup's epoch-making lithotriptor, or " percuteur courbé a marteau " in 1832, improved by Mercier, and still in use, until Bigelow's new armamentarium, with which the history of the operative technic of lithotripsy will in all probability be closed In that history it seems we have a new proof of the old observation of how slowly and gradually the mind becomes educated till it finally arrives at a grand conception, the beginning of which usually being the most complicated and intricate before it finally obtains a simple solution

The operation of lithotripsy is one of extraordinary delicacy, affording great skill and dexterity Equally so has ample expertness and care to be employed in the manufacture of the instruments here used, and none of them ought to be taken in use before its strength and mettle have been fully tried, since a distortion or a break might cause much mischief In the printed Transactions of the mentioned International Congress, we find an exact description of Bigelow's method, called *Lithotopaxy*, and also the drawings of the diverse instruments belonging to his armamentarium The method of Bigelow has been proclaimed "as beyond further improvement, it being more than even an elaborate advancement, having reversed what so far had been based upon well-established principles, and it ought to be recognized as an entirely new operation " "The crushing of the calculus and the subsequent removal of its fragments *in one sitting*, to facilitate which the instruments have been altered, increased in size and improved in composition, and the results obtained by Bigelow himself, by Otis, Thompson in England, and others, all write in the confirmation of the characteristics of Bigelow's triumphant revolutionary method as a great advancement in surgical practice "

Far removed as I am from bickering or hair-splitting, yet I cannot agree with Dr Teevan's international peroration in which he called the old method " the great opprobrium, that often neither killed nor cured , which removed the stone but failed to cure the patient," and " that such was not the case with Bigelow's operation, which would not be followed by a chronic cystitis, with its consecutive phosphatic deposits " Singular that to some men it appears often so difficult, be it in their eulogies or censures, to mete out an even-handed justice

What we have just heard here from Dr Teevan is not quite " the whole truth " The doctor took the colors rather too thick I have known surgeons, for instance the late Dr Stilling, one of the most skillful and lucky operators, and a specialist in lithotripsy to boot, who often extended the number of sittings to eight, twelve, and in several cases to even twenty (a great number of his cases were published in the *Berliner Klinik*) before he discharged his patients, and most of them perfectly cured In none of his cases did we hear that a chronic cystitis followed the operation, nor was it mentioned as having already existed Neither is the removal of all fragments in one sitting so absolute a necessity, nor does Bigelow's method require it

Chronic cystitis frequently complicated with pyelitis (pyelonephritis) is one of those obstinate and unfortunately resisting diseases, in which lithotripsy, and were it even Bigelow's method, is of some service or advantage, which would render it preferable to urethrotomy or cystotomy Yet lithotripsy might even be contraindicated, if the disease, for instance, should be complicated with an enlarged prostate, or with a great irritability of the bladder, where chills and a high fever might ensue Cutting such a hypertrophied prostate would, on the contrary, have a beneficial influence, the gland getting thereby smaller, or attaining its normal size, provided that no alkalinity of the urine existed, and a proper aseptic treatment followed The easier access to the bladder, permitting a frequent washing out with the aseptic liquids, a more thorough drainage, preventing any accumulation of urine, are all so well known beneficial factors in an existing chronic cystitis, that the question of a supremacy of urethrotomy or cystotomy cannot for a moment be doubted Dr Teevan considering as detrimental already a simple introduction and examination of the bladder with the catheter, in the presence of a chronic cystitis, how much more should he not avoid an operation with enlarged instruments, as the sound or percuteur, and such even during a protracted time of from one to three hours, after Bigelow's own statement? The examination of a bladder, if executed in a tender manner with aseptic instruments and the patient narcotized, ought not to alarm Dr Teevan, since it is a totally harmless operation if properly handled And when Dr Teevan, in an old man with chronic cystitis and an enlarged prostate, hopes to accomplish more by lithotripsy, *followed* by external urethrotomy, a combination, the doctor prides himself on being the happy inventor of, I do not feel jealousy, nor do I grudge him *his* invention, neither will it induce me to cease giving preference to the "pærineal median urethrotomy," *followed*, if necessary, by lithotripsy, saving thereby time, labor, and also consistency

Besides Dr Teevan we met with other brilliant lights in that International Medical Congress, who have been to us a source of instruction and not less of amusement Of great interest are thus the "*Congressional debates about lithotrity and lithotomy, their comparative value and of the progress which had been made in the two operations*"

Decorum might require us to listen first to what the presiding officer had to say I therefore call attention first to the distinguished surgeon John E Erichsen, who at the same time delivered the inaugural address to the "*International Surgical Council*," composed of four vice-presidents and secretaries (all English), besides forty-one Englishmen, with twenty-five outsiders Small as was the number of those foreign to English soil, it was sufficiently balanced by genius and talent Among the eight important subjects laid down for discussion was, as third "*The advances, if any, which of late had been made in lithotrity and lithotomy*"

Regarding "lithotomy" *Erichsen* saw "much of change, possibly of novelty, but not so certainly anything of real progress" Erichsen put the question boldly "Have we indeed advanced a single step, either in the *perfection* or in the *result* of that operation, since the days of Cheselden, of Martineau, or of Crosse, not to mention the names of more recent but equally illustrious surgeons and successful operators? They have certainly not been very encouraging in their results and can scarcely claim to be considered in the light of an advance on the lateral operation in skillful hands"

Yet Erichsen admitted that the methods of "lithotomy" might deserve this consideration—"that possibly in some forms of calculus and in certain conditions of the urinary organs a wise eclecticism might be exercised in the choice of one or the other of them" In lithotripsy he was willing to admit that a great and real advance had *probably* been made," yea, he graciously declared that this great revolution had been effected by American *enterprise* and *skill*, that Bigelow's operation had completely changed the aspect of lithotripsy, and that here a fertile field had been opened for deliberation in what cases Bigelow's operation might safely be used? also the ultimate result upon the bladder and the kidneys a prolonged intravesical instrumentation would have" And again, "that further information would be needed as to the comparative advantage of one or more sittings, and the more important question of determining the life and future comfort of the patient

The discussion which hereon ensued centered almost exclusively in the operation of Bigelow, while most of the propounded questions remained unanswered, instead of which those participating in the discussion gave us their views, with which they had probably intended beforehand to entertain the assembly

From what is to be perceived of that inaugural address, as well as from the latest edition of his elaborate work on surgery, I do not believe John E Erichsen always to be that unbiased judge whose dictum ought to carry great weight if not conviction with it When Erichsen stated that in "lithotomy" we had *not* made any real progress, that we had not advanced a single step, either in the perfection or in the result of that operation since the days of Cheselden, not to mention the names of more recent illustrious surgeons and successful operators," I should like to inquire what kind of progress he was looking for and where the deficiencies came in? To these questions I consider myself the more entitled since Erichsen in that same address had remarked, and very properly "that there could not always be new fields for conquest by the knife" But when he then continues "The revived median, its combination with lithotrity, the supra pubic, whether done antiseptically or not, have certainly not been very encouraging in their results, and can scarcely claim to be considered in the light of an advance on the lateral operation in skillful hands," I again have to inquire after the source from which he felt empowered to form and express such an unfavorable, unjust and untrue opinion? When the mortality of a certain operation compares well with the most favored one, or even surpasses it, be it in the percentage of cures, the manner and security of execution, the smaller number of instruments used, or in the time of recovery, I think it unjust in a high degree to raise such complaints When science has established such a variety of means for the cure of a disease as in "the operation for stone," any modest surgeon ought to be thankful for such "*richesse*," and fertility of genius, instead of uttering so unqualified a condemnation of a general want of progress If in mentioning "the revived median operation" Erichsen referred to Allarton's method, I have even to increase my protest against such unjust and undeserved aspersion of so excellent and unrivalled an operation Altogether, Erichsen's criticisms of the missing advance and progress in "lithotomy" have been unsound, contradictory and ungenerous, and most so have those surgeons unjustly been touched by it, who endeavored to cultivate a method so improperly neglected, misconstrued and falsely colored, as the pærineal median urethrotomy of Allarton, the obtained results of which will compare favorably with any other operation in the whole area of surgical practice

Now let us hear another typical Englishman, Sir H Thompson, "the greatest living operator for stone" as he is called, who is said to have performed the greatest number of such operations—beyond 800 Thompson stated "that he had operated after Bigelow's method in ninety cases, and that most of the old men operated upon had been of an average age of 60 years, and had lost of these ninety cases only three by death, whilst eighty-seven recovered Ten cases he operated on during that time with the lateral section, of which number four had died, and one operated after Allarton's method, who had recovered The calculi in the average weighed twenty grams, (five drachms) The majority of these cases, he stated, would not have admitted uncommon large instruments The *smaller* the instruments, he thought, the *better* would be the results, and the earlier the operation was performed the better, since then every calculus might be removed in one sitting" Of the complicated cases he did not give an opinion Of the various methods of "lithotomy" worth mentioning, he named "the *lateral section*, the *sectio alta*, the *pærineal median* and the *recto-vesicalis*" He gave the advice "to select either lithotrity or the lateral section, and if necessary also combined with crushing the calculus" Such a combination he thought "under some circumstances preferable and less dangerous than removing the calculus entire" From the result he himself obtained with that lateral section, a mortality of 40 per cent, he certainly could not very much recommend it In lithotrity he advised to dilate well the urethra and neck of the bladder The percuteur when entered through the urethra ought to be surrounded by an Indian rubber tube The bladder ought partially to be filled with water to prevent the catching of parts of it, and the pelvis might be lifted to better keep the injected liquid in the bladder The evacuation of the bladder from the fragments through a catheter, might it be ever so large, would nevertheless require *often repeated crushings*, a proceeding much more dangerous than an additional wound in the pærineal part of the urethra through which to remove the fragments A cut into the enlarged prostate could be no objection, since by giving additional room such would be rather beneficial to the patient A catheter introduced through the whole urethra would besides give pain, while if entered through a pærineal wound it would be well borne

I have faithfully recorded here all Sir Thompson mentioned in the congressional debates appertaining to the matter under discussion There is not much of new material of which we were not already aware, chiefly that the operation of lithotrity would be more successful under the application of smaller-sized catheters, a step evidently backwards from Bigelow's method Not less remarkable is the lightning celerity with which Sir Thompson is stated to have performed his lithotritic operations, many in five minutes! When we consider all the precautions as given by himself, the catching of the stone—frequently the most difficult and time-consuming part—the crushing and removing all of the fragments, and probably through a small catheter, which he preferred, and with the assurance that none of the débris be left behind, continuing, according to his own statement, in the average but from six to nine minutes, (!) such passes my comprehension, and gives an idea of the wonderful dexterity of that wonderful man, and not less is his success to be wondered at, when we consider the danger which, under certain circumstances, a wound made by the percuteur, or even the smallest fragments remaining in the bladder may cause, under the total neglect of all antiseptic injections or washing out the bladder And this the more so, since according to his own statement death *once* (?) followed, the real cause of which remained unknown to him "Of chronic cystitis he met but a few cases, and which took him a long time to cure" Of the use of antiseptics he did not say a word, neither did he give us the number of accidents he met with, he only stated that "occasionally phosphates did again form" Herewith we can take leave of Sir H Thompson, turning to our countryman, the ingenious *Bigelow* He, we are aware, removed the fragments through the whole length of the urethral canal, by his ingeniously constructed instruments His method called litholopaxy has, by general consent, been called a "*question of apparatus*" Bigelow's essential instrument is the catheter, or sound of from 21 to 31 mm circumference, with a large orifice, eye, while of the catheters commonly in use, it may well be said that 'they delayed the progress of lithotripsy for sixty years " Bigelow states that "even the most minute piece of a crushed stone left behind might become the nucleus of a new calculus " But there exists still a greater danger, of which later To prevent fragments from going back during the evacuating process, Bigelow constructed his evacuating apparatus, an improvement of Clover's, for washing out the bladder as well as for sounding after the smallest fragments This instrument consists of a sound with a valve, or strainer, and a stiff bulb, all, according to him, very important parts for a successful lithotritic operation The sound with the evacuator has been named "the key to modern lithotripsy " But when Bigelow said "it would take time to decide if modern lithotrity was not better than lithotomy," that question strikes me as being paradoxical, since such a time will probably never arrive There may be more cases fit for the operation of litotripsy, but that does not render it superior to cutting, to urethrotomy, or cystotomy Both methods may in time have their places better assigned than at present, but never will even modern "litholopaxy" displace either urethrotomy or cystotomy, just as there may arrive cases unfavorable for any operation at all Neither do I assent when Bigelow thinks that "lithotripsy did not need any further statistics even in small stones," since complications may happen with small as well as large ones Worthless as our present statistics are, the preference given to the knife in small children with small stones, instead of using the lithotriptor, will, I believe, be generally supported In cases complicated with chronic cystitis and pyelitis, may the patients be old or young, the stones large or small, the patient will fare better under the selection of a cutting operation than by lithotripsy Besides, it may be difficult for the practical surgeon to rid himself of the traditional preference for the knife All of which will certainly delay the final verdict, which Bigelow thinks so near, if not already decided, so that he feels empowered to utter the dictum, "that the patient will encounter less risk with modern lithotrity," and that he does not know "any indication when lithotomy should peremptorily be decided upon "

The weight of the after-treatment that the bladder should be well drained and the needed rest be given, which the knife will better accomplish, that alone ought to have made Bigelow hesitate to give such a categorical decision His statement that lithotrity was not as skilfully executed by the general surgeon as "lithotomy," I most willingly admit, though want of skill is certainly not a point for a general recommendation, but then it should rather be in a preference for urethrotomy or cystotomy

When Bigelow further states that "no secondary hæmorrhage could happen with lithotrity," I have to call his attention to recorded facts, and that even so expert and skillful a surgeon as Sir H Thompson lost a case in consequence of it, according to his own statement Regarding Bigelow's assertion that "there was not a grave wound in a diseased prostate, communicating perhaps with putrid catarrh of the urinary tract," I regret to have equally to protest against it, as not corresponding with stubborn facts

Amongst 120 lithotriptic cases performed by American and English surgeons—counted in 1881—after Bigelow's method and with a death-rate of but six cases, or 5 per cent, excellent as that result would be, yet it cannot be taken exclusively as a criterion in judging the value of the method The death rate, so uncertain a factor in itself, since we seldom, if ever, become acquainted with all the unfavorable results, is not by far the most important factor in judging the capacity of a method It was just the high death-rate in cases complicated with cystitis and pyelitis, that lithotripsy, notwithstanding the success of some surgeons, was condemned and relinquished by the majority of the profession, when Bigelow appeared with his speedy and complete removal of the irritating and poisonous detritus, and by his revolutionary proceeding in the reconstruction of the instruments, not merely saved the operation from a total annihilation, but elevated it anew into the position of one of the foremost operations for the removal of a vesical calculus

The drawback the new operation of litholopaxy suffers from, preventing it from a more frequent adoption, mostly so in localities where stone in the bladder belongs to the rare diseases, is the high price of the costly instruments—$40—which are in no comparison with the few and cheap instruments the operation of urethrotomy requires This, with the skill required in the performance of litholopaxy, deters the general surgeon from its selection and preference, while to perform urethrotomy, or even cystotomy, unfortunately every tyro in the profession considers himself at least an Astley Cooper, a Velpeau or a Dieffenbach

(TO BE CONTINUED)

INCONTINENCE OF URINE IN CHILDREN

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Read in Section on Diseases of Children of American Medical Association, May, 1884

How a subject of as much importance should have so long escaped presentation and discussion before the American Medical Association is surprising, but the fact exists that it never has been presented to this body, and for that reason I have chosen it

There is not much importance attached to the history of the disease With the assistance of Drs Kolipinski and McArdle, of this city, I have examined all the literature on the subject from 1784 to the present, including articles in German, French, Italian and Spanish In 1784 Mitchell wrote on the disease as clearly as any subsequent author, and its pathology was as well understood then as now The tendency at that time was to let it alone with a hope that puberty would restore the function of the bladder

From birth the child instinctively voids its urine, and we take it for granted that the act is reflex But with the evolution of the teeth, speech begins, intelligence is developing, and we expect the will to control the sphincter vesicæ The rule is that about the eighteenth month the child is taught to exercise complete control over the sphincter If after this age the urine is passed involuntarily the tendency is to attribute the disgusting act rather to carelessness than to a pathological state, which to my mind is an injustice to the child From observation and the supervision over children of every condition of life I am loath to accept this conclusion and am proud to state that all the cases which have come under my observation have had specific causes, and were not the effects of laziness So, believing as I do in a pathological state, it delights me to attempt this defence of the long-abused unfortunate

Many a child has been repeatedly and unmercifully punished for wetting his clothes or bed, in the face of repeated protestations that he could not help it The disease and punishment go on together until the patient becomes such an object of disgust to himself and his family that they are impelled to seek professional advice Then the parents learn that they have been chastising their child, perhaps for years, for a fault which was the result of disease and therefore uncontrollable, when they would have quickly resented a just punishment if administered by some one else for a real fault less offensive in its character

Again, there are others who, while they believe the act involuntary, will let it run on for years with the hope that education and the inculcation of habits of cleanliness will effect a cure, or that their only hope for relief is in the establishment of puberty

The child instinctively becomes neat, and seeks the proper time and place to empty its bladder, and I am unwilling to admit that it ever deliberately soils its clothes after it has once been taught to use the vessel None of the brute creation will lie in their urine if they are not tied or penned, then why do we attribute this practice in the rational being to laziness? Simply because some are not able, by a careless and superficial examination, to find the cause, and well knowing that their reputations will be at stake if they do not account for the act, they too often condemn the helpless child to daily floggings There must be a pathological condition to account for an act that makes nature an abhorrence to herself, and it is our duty to seek diligently for it, remove it, and thus transmute the filthy child into the cleanly

But in too many cases the act continues untreated, in spite of punishments and the jeers of companions, until well-marked physical changes take place The child, bright and cheerful by nature, soon loses his vivacity, shrinks from the presence of his companions, becomes morose and spiteful, pale and haggard, restless and nervous, will not look you in the face, and with chin depressed and upper lids drooping, presents, indeed, a striking likeness to the onanist

We generally find the disease divided into three varieties In the first class the subjects suffer from a constant dribbling of urine day and night This variety is infrequent, and when found it is usually associated with some serious pathological state I have met with but two cases of this kind, in boys about eight years of age, who for several years had been unable to retain their water Examination revealed a vesical calculus in each case, which being removed, the function of the bladder became normal

A second class comprises those whose incontinence is intermittent in character, and occurs in the day as well as at night We find that in this class the urine is retained for a short time during the day when the desire to void comes, but before the child reaches a convenient place the sphincter is overcome, and the poor child is powerless to stop the flow This is the form usually met with in the girl In fact the histories of those I have seen have been that the girls would suddenly be taken with a desire to urinate, while in school or on the street, but before they could reach a closet the power of control gave way The cause in these cases was found to be vulvitis or urethritis, as a result of the irritation from ascarides in the vagina

But the third class is the one that interests us most because of its frequency in both sexes, its nocturnal character, its possible concealment for years, and the promptness with which it yields to treatment It is the children of this class who are so frequently punished for bed-wetting when they are as powerless to control the sphincter during the night as are those of the two preceding classes during the day They may, and usually do urinate before retiring, and yet, about midnight, during a profound sleep, the urine is passed again, or it may be that the night is passed without the accident, but just before rising in the morning the contents of a full bladder are involuntarily set free Patients of this class generally dream of urinating In the boys of this class urination takes place during erection of the penis Again we meet with cases where the cause is obscure, but, nevertheless, the nocturnal incontinence occasionally takes place In these patients I attribute the accident to causes that favor a perfectly physiological process in the adult We well know that late suppers, rich food, wines, certain positions during repose, profound sleep, amorous or lascivious dreams, and many such causes produce a nocturnal pollution in the adult, and I am convinced that the same causes excite a similar irritation in the child, but instead of the seminal discharge, the physiological process of which is not yet established, the bladder is emptied In each instance the discharge is the result of a conservative process of nature to relieve the irritation Indeed, this theory seems the more plausible because in many instances the nocturnal bed-wetting goes on undisturbed until the full establishment of the sexual functions, when the enuresis is superseded by nocturnal pollutions This theory is also tenable because most of the remedies which cure the adult of his complaint very quickly relieve the the child of its

The disease is more frequent than the statistics of hospitals would seem to indicate, for the greater number of cases go untreated until a spontaneous cure is reached The probability is, it is not always differentiated and recorded as a distinct disease, since in the statistics I have examined it seems to have occurred only 46 times in 15,169 children treated at the Children's Hospital, D C , five times in 2,058 at the Children's Hospital of Boston, and four times in 2,034 at the Children's Hospital of Philadelphia, or 55 times in 19,261 sick children

It most frequently exists in children between 8 and 12 years, but may occur at any time between 2 years and puberty It is common in both sexes, white and black

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Some writers claim that there is a reflex relation between hip disease and nocturnal incontinence, but the records of the Children's Hospital of this city, where a great many cases of hip disease are treated annually, do not accord with the statement

The following cases include some of each of the three classes

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This child had been regularly punished for several years while the stone was the constant irritant and its removal effected a speedy cure

Case II Sarah C , 15 years, C , was admitted to the service of Dr Busey, in the same institution, Oct 28, 1876 She had had constant dribbling of urine for seven years She was treated with the tincture of belladonna and was discharged cured Dec 4, 1876

In such cases as this it is not always easy to determine the pathological condition Usually atony or paralysis of the bladder, enlarged prostate, or stricture of the urethra is present

Case III Frank C , 7 years, W , was admitted to Dr Ashford's service April 19, 1879 He had had dysuria for some time As soon as he desired to urinate he had to run to the closet to avoid wetting his clothes Wet the bed at night Blood passed in urine at times April 24 a calculus weighing 175 grains was, with great difficulty, removed by the lateral operation, and the patient was soon after discharged cured

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Case VIII James S , 4 years, white On the 19th of March, 1884, Dr Busey invited me to assist in circumcising this boy From birth the little fellow had been accustomed to pass his water frequently, but after straining for several minutes he would become tired and cease trying, apparently before the bladder was emptied Dr Busey's attention was called to this condition, and examination revealed an elongated prepuce, with an opening about the size of a knitting-needle The patient at this time was pale, languid, thin, restless, slept at short intervals during the night, retained his water only a short time He, being etherized, was circumcised as described later on The adhesions to the glans were so firm that it required a longer time than usual to break them up He soon recovered from the operation, and has not had any difficulty about urination since Three weeks after the operation Dr Busey informed me that I would hardly recognize the child. He had become fat, rosy and cheerful

It may be claimed by some that this case is not properly classed, as there was no actual incontinence But if it is admitted that in a perfectly healthy child of his age the urine should be retained three or four hours, then an uncontrollable desire to pass water at shorter intervals being shown, it would seem to approximate incontinence and hence this classification Although I cannot state positively, still I venture the assertion that when the desire to urinate came, if he had not hurried to a convenient place he would have soiled his linen

Case IX Mary W , 4 years, colored Was admitted to Dr Busey's service April 19, 1871 She had had incontinence, and intense pain on micturition for one week, the incontinence mostly at night She was treated with tincture of belladonna, and discharged cured May 17

Case X W H , 12 years W M Was admitted to the same service September 3 1879 Four years before he had had measles, from that time he had had incontinence day and night He was put on the belladonna treatment, and discharged cured March 6

Case XI Guy P , 11 years, W Was admitted to the same service September 3, 1879 He would generally hold his water until the bladder became distended, when he lost control over the sphincter He was improving rapidly under the belladonna, when his parents removed him without the consent of the attending physician

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Finally, another class is met with where there is an adherent prepuce, with a collection of smegma behind the corona In such cases breaking up the adhesions and cleansing the part will generally effect a cure

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Case XV Fred R , 3 years, W , was taken with balanitis in November, 1883 Upon examining him I found an elongated prepuce with an opening about large enough to admit an ordinary darning needle, from which was pouring a profuse purulent discharge The inflammation was believed to be due to the phimosis, and I advised circumcision At this time I questioned the mother as to whether he was the subject of nocturnal enuresis, and learned that he sometimes wet the bed, but was in the habit of calling her three or four times during the night to put him on the chamber On the 24th of November, with the assistance of Dr McArdle, circumcision was performed The mucous membrane was adherent as far as the meatus, and a large quantity of smegma was behind the corona In ten days the patient was discharged and up to date (May, 1884) has not wet his bed, holds his water well during the day, and rarely has to be taken up at night

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At my request Dr H D Fry, of this city, gave me the following details of a case that came under his observation It properly belongs to class I

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"The patient was fifteen and a half years of age, and fairly well grown The penis was small and undeveloped, and extending from the end of the organ was a long snout-like projection of preputial tissue, which could not be retracted over the glans penis His mother gave the following history of the case Until the age of five years he was not unlike other children as regards both his general condition and the appearance of his *privates* At this time his penis was broken out with poison oak and the prepuce could then be drawn back in order to attend to the dressing of the part After his recovery the glans penis could not be exposed

"When about eleven years of age the parts became sore again, and from this time he had no control over the discharge of urine His general health declined, complexion was bad, complained of pains in his side, and became nervous and irritable His manner at school was so different from that of other boys that his teacher's attention was called to his actions, and he spoke to the boy's parents and advised them to have something done with him

"Such was the state of affairs at the time of the operation, and it had existed about four and a half years

"I removed the redundant tissue back to the corona, broke away some adhesions that existed, and left the case with the request that no medicinal treatment should be employed I wished to see the effect of the operation *per se*

"April 28, 1884, the boy's mother wrote the following report 'After the operation he had no fever, slept well without opiates, and suffered little pain There was little or no suppuration In a week he left his bed, and in a month returned to school His general health since has improved slowly, is less irritable, complexion better, and retains his urine ' "

In the few cases of occasional nocturnal incontinence the cause may be an over-loaded stomach or bowel, intestinal worms, hip disease, adherent prepuce, or amorous or lascivious dreams

I myself do not doubt that in cases of phymosis, the nocturnal incontinence is due to reflex irritation In some cases the irritant is the smegma behind the corona which keeps up a constant excitation During the day the will is powerful enough to overcome the action of the spinal centre presiding over urination, while at night the will is asleep and the reflex reaches its maximum In other cases, owing to the contracted orifice of the prepuce, the bladder becomes tired from prolonged expulsive efforts and relaxes curred only 46 times in 15,169 children treated at the Children's Hospital, D C , five times in 2,058 at the Children's Hospital of Boston, and four times in 2,034 at the Children's Hospital of Philadelphia, or 55 times in 19,261 sick children

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To determine the pathological condition is not always an easy matter. Atony of the sphincter vesicæ, or spasm of the detrusor urinæ may be the cause. The controlling power over the sphincter, which is largely reflex, may, by the influence of the will, prevent the escape of urine during the day, but at night, when the will is asleep, this power is relaxed, and the consequence is involuntary micturition regardless of cerebration.

As I do not admit that incontinence is frequently the offshoot of fear or laziness, of course I hold that moral suasion and corporal punishment are not efficient correctives, and equally of course I contend that in most cases the indicated procedure is either remedial or operative.

It would be more interesting than instructive to examine the literature of the internal remedies which have been successful in these cases. Nearly every drug in the materia medica has been tried with equal success, if we are to credit the books. Drugs physiologically and chemically incompatible have been combined and success claimed for them. Accepting *the theory of a want of tonicity in the muscular walls* of the bladder, some have used remedies that should have aggravated the trouble and yet have claimed a perfect cure. In such cases the results were probably accidental, and most likely were brought about by nature in spite of the treatment.

Leonardi and others extol chloral, but others have failed to derive any benefit from its use. It acts by allaying the reflex irritability in the cord. I do not approve of the use of this drug with children, certainly not except with the utmost caution. Owing to the variability in strength of the preparation, and the uncertainty of its physiological action, as well as the individual idiosyncrasies, it must, in my opinion, be regarded as one of the most dangerous and uncertain remedies in common use.

The bromides take foremost rank in the treatment of those cases in which an exalted nervous condition can alone account for the incontinuence. They should be given in large doses at bedtime.

But belladonna is the remedy *par excellence* in the treatment of those cases believed to be associated with a tonic spasm of the bladder. One of its physiological actions is to relax the tonic contraction of the involuntary muscular fibres. The muscles of the bladder being of this class, when the atropia in the urine comes in contact with the walls of the bladder it allays irritability and relaxes spasm. In order to derive benefit from the drug it should be given in large doses at bedtime, which should be increased, drop by drop, daily, until improvement results or its physiological effects are obtained. It must be borne in mind that children will bear much larger proportional doses than adults. I speak in the highest terms of this drug because, as will be seen from the foregoing cases, it alone produced beneficial results in about four weeks.[1]

If there is a relaxation of the sphincter vesicæ or paresis of the muscles of the bladder, strychnia is indicated. But as I have never seen a case of this kind I have had no experience with it.

If the patients are puny or in ill health we would naturally expect better results by improving the general health while we are administering remedies.

Experience has taught me that the best success attends those patients who are treated in hospitals. In these institutions the diet of the child can be regulated, and many advantages gained in treatment. Parents will insist and believe that the physician's instructions are carried out in full; but they forget the sympathizing friends about the house who think the child unduly restricted, and who are, therefore, willing and ready to cater to its whims. For this reason it has been my custom to advise children to be placed in the hospital. If the patient can be fully controlled, success will quickly attend the treatment indicated.

In order to make statistics of operative procedures valuable, the use of remedies should be suspended. If we operate, then the operation should stand upon its own merits, and not be embarrassed by drugs. After a circumcision, if belladonna is given how can we tell which means effected a cure? In the cases above reported as operated on, nothing but soporifics were given.

I do not advocate circumcision as the certainly indicated remedy in *all* cases, nor do I believe that every boy who has incontinence, with an elongated prepuce, should be compelled to undergo the operation. If the prepuce cannot be retracted, then I would advise operating; and while sometimes the opening in the prepuce is large enough, yet it cannot be retracted owing to adhesions. In such cases, if these adhesions are broken up favorable results will follow.

I prefer to perform the operation of circumcision in the following manner. The prepuce is drawn forward, and Henry's clamp tightly applied; the end of the prepuce is then cut off with scissors, and the clamp left on the stump for several minutes to check bleeding; a director is then pushed along the upper surface of the glans, and the mucous membrane divided beyond the corona. The membrane is then turned back to meet the retracted skin, and made fast by five silk sutures. In about ten days the patient is well. I remove only that part of the mucous membrane that is cut off with the end of the prepuce, for by leaving a long membrane it can be turned back and thereby hide the cicatrix, which is a source of mortification to many parents. In cases VIII, XV, and XVI, there is nothing to attract the attention to circumcised organs. One objection to the operation is that the glans will be left uncovered, and that it destroys to some extent the sensitiveness of the organ. If this were true it would in many cases prove a great blessing, but, unfortunately, it is not true Another objection is that the beauty of the organ is destroyed, whereas, in fact, if the circumcision is neatly done the penis presents a far better appearance than it does with a redundant foreskin

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[1] NOTE.—In all of Dr. Busey's cases the belladonna was given at night and increased, drop by drop, daily, until the desired effect was produced.

From the foregoing cases, which have invariably been attended with complete success, without the administration of a drop of medicine, is it to be wondered at that I so strongly favor circumcision ?

Some have advised forcibly stretching the contracted prepuce—a process both tedious and unsatisfactory

Teevan, a British writer, advocates slitting the meatus, which he thinks is too small in most children with incontinence As I have not seen any cases requiring the operation, I must accept his statement that benefit was derived from it

There is one other kind of treatment discussed and recommended in the books, that may be called the mechanical

Many here present, I dare say, have been called to treat an œdematous prepuce caused by tying a string around the penis to prevent bed-wetting Perhaps some little fellow, after frequent thrashings, has finally, in sheer desperation, conceived the idea of eluding the lash by tying up the escape-pipe He may have missed the chastisement, but he paid dearly for the immunity

Corrigan, apparently a writer of note in Great Britain, deliberately and strongly advocates hermetically sealing the prepuce with collodion He stretches the prepuce and forms a pouch, into which the collodion is poured, solidifies, and thereby prevents the escape of urine !

Compression of the membranous portion of the urethra by a pad, and packing the vagina have also enthusiastic devotees !

Knotted towels, spiked belts and other uncomfortable rigging to prevent the child from lying on its back have also received their share of commendation

It seems hardly necessary to comment on these various mechanical methods of treatment, since they seem to evince a hopeless ignorance of the etiology of the disease, and are not only valueless but actually harmful

The bibliography of this subject has been very carefully examined, with the courteous and efficient aid of Drs Fletcher and Wise of the Surgeon General's Office, U S A , and I believe the following is a measurably complete list

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HINTS ON THE USE OF DRAINAGE TUBES

BY W L GETZ, M D, MARSHALLTOWN, IOWA

Some months ago we had occasion to evacuate a pelvic abscess, and use a drainage tube as a means of thorough drainage Not having at hand at the time a regular drainage tube, we constructed one out of a piece of plain (small size) rubber tubing After being in the opening for several days we desired to replace it by another tube, we attempted to remove it, found that the opening in the tissues through which the tube had passed had contracted so as to hold tightly the tube, and although we made but slight traction, anticipating the possibility of the tube's breaking, to our extreme discomfort and dissatisfaction, we soon realized that our anticipations were realities, a portion of the tube, an inch in length, remaining within the pelvic cavity

We succeeded in removing it by dilating the opening through which the tube was passed, then introducing a small blunt hook, we succeeded in drawing the piece of tube into position, so that it was easily grasped by a pair of forceps and extracted, much to our satisfaction, and with a vow that in the future we shall select with *caution* our *material for drainage tubes*

A hint on the removal of tubes and also upon their introduction may not be out of order here under circumstances as above described, where the tissues firmly hold the tube, we should adopt the plan of inserting within the tube a dilator of some kind with which to dilate the tissues before we attempt to withdraw the tube

As a satisfactory method of introducing drainage tubes, we have found that where a trocar-canula were necessary to evacuate the contents of a cyst or an abscess, that by taking the precaution to use a canula a trifle larger than the drainage tube to be used, the latter could be conveniently passed through the canula into position and then the canula withdrawn

A NEW SURGICAL POCKET CASE

BY J H PARKINSON, M D, SACRAMENTO, CAL

Read before the Sacramento Society for Medical Improvement, Dec 16 1884

To propose a new surgical pocket case may seem a very unnecessary proceeding, yet a glance at the catalogue of any large instrument maker shows that the best form has so far not been attained, for in no class of appliances, except perhaps the obstetric forceps, is the variety as great Its name implies that it contains such instruments as may be required in minor surgery, arranged in the smallest bulk, so as to be readily carried with the minimum of inconvenience In looking over the different models one must be struck by their singular unfitness for this object The instruments are often clumsy and ill adapted for their purposes, the knives arranged in combinations dissimilar in ability, and articles are included which in practice are almost useless No better instance of this can be cited than the British Army regulation case, with its portable hypodermic syringe, a weapon even in skilful hands of perilous accuracy It is not alone that the contents shall be of the best and most improved manufacture, selected with a view to general utility and emergency, but that the case itself shall be of such dimensions as will by its portability ensure its always being at hand Most manufacturers in an effort at compactness make their cases thick and short, so that when closed they are almost cylindrical This is one of the most awkward forms conceivable for the pocket, it is not so much the length or breadth of a case which is objectionable as its thickness, and just in this essential particular existing models, otherwise practically useful, fall short The first great step in the improvement of this most important adjunct to the practitioner was the invention of movable blades and universal handles, which has made it possible to carry a large number of cutting instruments in a confined space Availing themselves of this, Tiemann & Co and Charriere have produced very serviceable cases, while that of Professor Dugas, though not after the same model, is perhaps more useful than either These which may be taken as the best types of their kind, are well suited for the office or carriage, but certainly not for the pocket of any garment save an " ulster "

Recognizing the disadvantages of existing models, and knowing the difficulties in the way I have proceeded slowly, practically testing any new idea before including it in the general plan I think I have now a genuine "surgical pocket case," which, while it contains every instrument required in daily practice, is available in such emergencies as are at any time liable to occur The instruments are of the best manufacture, combined where it was possible to do so without sacrificing effectiveness The case is of a shape and material to render it adaptable to the pocket, and at the same time of sufficient strength to stand wear and tear and protect its contents

The instruments, twenty-five in all, comprise two shell handles, each with a universal and Tiemann's catch to take blades, etc, containing respectively a small, sharp, pointed, curved, bistoury and tenotome Fitting into these handles are a metacarpal saw, a knife, cutting edge 2⅝ inches in length, two scalpels, medium and small, a curved bistoury probe pointed, and a curved needle, a grooved exploring needle, Weir's combined lancet and vaccinator, a caustic case, also containing an eye spud for foreign bodies, a trocar and canula, an artery forceps, grooved to carry needle, slide catch, a bullet forceps, Tiemann's patent jaw action, open rings and catch, scissors, one sharp, one probe point open rings, a combined tenaculum and aneurism needle, a director with end for separating tissues, a catheter, metallic, flexible, 9 inches long, a small eye probe, silver, Nélaton's probe, steel flexible, ordinary silver probe tapped to receive Nelaton's portion of silver probe with eye and *porte meche* tapped at one end and attachable to either of the foregoing, three steel pins for acupressure, some silver ones, smaller, needles, curved and straight, silver wire, silk suture and ligature assorted

Taking the instruments in the above order The handles are neatly made of the best tortoise shell, and contain in one end a strong tenotome and a short curved bistoury sharp pointed, secured with a slide catch when open These two knives for general purposes are required more frequently than any others As it is necessary to have two handles for the extra blades, and only possible to utilize one end for them, the advantage of having these two knives always prepared for use, and where they are taking up what would otherwise be waste space, is obvious Tiemann's patent catch is so fully described elsewhere that I need not dwell upon it, except to add that it is perfect in its effective simplicity The metacarpal saw is of the ordinary pattern The long bistoury, which measures 2⅝ inches on its cutting edge, is shaped like the ordinary amputating knife, which makes it much stronger than the usual model The medium sized scalpel is after Charriere's, the small scalpel has a round edge The curved bistoury probe pointed is full length, and by means of two strips of adhesive plaster can be converted into a hernia knife The grooved exploring needle is gilt, which will not stain or tarnish on contact with purulent fluids The curved needle will be found useful where sutures have to be inserted deeply in fleshy parts Weir's scarifier and lancet is a perfect little instrument, though of course carrying with it the objections urged against any permanent vaccinator The caustic case is of aluminum, and contains in its other end an eye spud This particular pattern was suggested by Dr W E Briggs as being safer in the hands of the non specialist than most forms The trocar and canula is of medium size, permitting it to be also used for exploring purposes The shape of the handle was adopted to save space in packing The bullet forceps, being contained in a pocket-case, is of necessity short, but will often be found of sufficient length It is useful, as suggested by Dr F H Brown (Boston *Medical and Surgical Journal*), in removing foreign bodies from the ear and nose By an ingenious arrangement the jaws have a separate action, and can be divaricated independent of the handles quite widely without distending the passage or sinus A small catch makes the instrument self gripping, and provides a useful dressing forceps The scissors have one probe and one sharp point, this is to be preferred to the blunt pointed variety The relative length of the blades to the handles, ⅓ to ⅔, by providing good leverage enables them to cut firmly and to the point Like the bullet forceps, they are provided with open rings to economize space The combined aneurism needle and tenaculum is of steel, and, I trust, more generally serviceable than those we usually find in pocket cases The curve of the needle is Charriere's, and that of the tenaculum an average of several models, permitting it to rest comfortably on the index finger at an angle of forty-five degrees when tying The director of steel has an end like that of the ordinary scalpel handle for separating tissues, and as this is often required when the director is in use, it will be found a very handy combination The catheter, in two pieces, is Gross' metallic flexible, fitted so that the parts slide over each other, it is conical pointed, which will often facilitate introduction The probes consist of a small double-ended silver one, the ordinary silver probe made extra heavy, and provided with a female screw at one end, Nelaton's probe, made of flexible steel, a useful modification of Dr C This has a male screw cut in one end, an eyed probe, silver, with slot cut to use as a porte meche, the other end furnished with a male screw These, when fitted together, form a long silver bullet probe, and a Nelaton's probe with reversible silver end The case is of Morocco leather, unlined except where the blades rest, silk being there used in preference to velvet as less likely to take the dust It measures when closed 5¼ inches in length, 3 inches in breadth, and ¾ of an inch in thickness, and fastens with a long flap, bringing the lock on the edge of the case, a position less likely to injure the pocket It is twofold, with one pocket The caustic case is carried inside the flap, the catheter on the hinge One side is devoted to the instruments, the other, lined with silk, takes the extra blades, a piece of undressed kid being fastened under the covering flaps, which meet, so as to effectually protect them

As will be seen, many of the instruments and models are those now in use All I claim is originality in the selection and arrangement Messrs Geo Tiemann & Co have rendered me most valuable assistance by many hints and suggestions, the result of their extensive experience Too much credit could not be given them for designing and making several of the instruments from very imperfect descriptions and sketches

MEDICAL PROGRESS.

SURGERY.

UNION OF DIVIDED NERVES BY SPLICING —A L Rawa publishes (*Centralbl f Chir*, Glasgow *M J*) the results of a large series of experiments on nerve suture by a new method It often happens that divided nerves stitched together by either the direct or the perineurotic method are torn apart again, especially if they have to be stretched to any extent to make good loss of nerve tissue Rawa's experiments were made upon animals, and in these the two ends of the divided nerves were laid side by side, riding sufficiently to allow of a single ligature being tied around them In some of the cases the experiment was varied by drawing out the two ends a little, turning up the two ends at right angles to the nerve, and whipping them together in that position. In a few of the animals more than one nerve of a limb was divided, and the peripheral end of the one nerve tied to the central end of the other, or the peripheral ends of two nerves to the central end of one.

In all cases it was found that in course of time the function of the divided nerves was restored, but that it took longer time (from six to twenty months) to restore it. The author gives details of the macroscopic and microscopic appearances of the nerves at various stages.

Rawa believes this method will be found useful in cases where a considerable portion of a nerve has been destroyed by an injury, or has to be removed during an operation, or where sutures have been tried and have torn through the tissues. Again where, as in operations for removal of tumors, etc., several nerves have to be divided, or part of a plexus removed, it may be possible to splice remaining portions of nerves together in such a way as to avoid loss of motion in the muscles supplied.

CORROSIVE SUBLIMATE AS A SURGICAL DRESSING.—Sir Joseph Lister delivered an address on this subject before the Medical Society of London. He has had recently several instances of results deviating from what he considered the normal type in aseptic wounds; in one instance a fatal result occurred from a form of spurious septicæmia, such as he had not seen for many a year. This was the only fatal case he had had, but other cases with delayed union and pus formation had occurred, undoubtedly of a septic character, that is to say, dependent upon the development of micro organism, although in none of the cases was there any offensive smell. Lately he had been using eucalyptus gauze; and owing to the great volatility of the eucalyptus oil, he had come to think that so much of it volatilised during the manufacture and drying of the gauze as to lessen materially its protective power. Formerly he had used dammar gum as holding the oil more securely than ordinary resin, but dammar was very expensive. After some further trials with resin, he had felt justified in substituting the cheaper material; recently, however, the results had proved far from satisfactory. He found, further, that the manufacturer had deviated from his instructions, and had left the gauze exposed to the air for a longer period than formerly, and it was to be feared that much of the eucalyptus oil had evaporated away. He had little doubt that the untoward results he had just referred to were due to imperfections in the manufacture and quality of the gauze he had been using. Volatile substances doubtless had many advantages, but also very many disadvantages; thus dressings became less and less antiseptic the longer they were worn, and they were also much at the mercy of the manufacturer. He pointed out the capabilities of some non-volatile substances, such as salicylic acid and iodoform. As to corrosive sublimate, Dr. Koch had shown the remarkable germicide action which the sublimate exerted on all forms of low organisms, including the bacillus anthracis, the spores of which were among the most resistant. Koch had ascertained that a solution of sublimate, 1–20,000, was adequate to absolutely destroy the vitality of the spores of the bacillus anthracis. The wood-wool dressing of Germany was a very unwieldy form of dressing, on account of the bulk required. Lister has found that corrosive sublimate formed with serum of the blood a compound which retained the antiseptic properties of the corrosive sublimate. Under such circumstances, it was not an albuminate of mercury in a chemical sense, but an albuminate of the compound corrosive sublimate; and this was a matter of great interest to the surgeon, for it was not only innocuous as regards the skin, but thoroughly antiseptic in its properties. Thus the discharges from a wound, in passing through a sublimate dressing, became associated with, but not precipitated by, the contained sublimate, and the sublimate in this way was rendered very much milder in its action, and could, therefore, be applied in a more concentrated form. With blood serum, 1 part in 70, or in 50, or in 30, it was perfectly amalgamated, and when dried gave off no deposit or crystalline separation whatever; it was free from smell, and applied to the skin was quite unirritating. He had found it thoroughly trustworthy as an antiseptic, and quite equal to freshly prepared carbolic gauze. French charpie, made of old rags, might be saturated with the solution, and would then form a very efficient and cheap dressing. If serum were treated with a certain proportion of sublimate, not sufficient to make it solid, it could be kept for an indefinite time. Perhaps one day sublimated serum might come to be an article of commerce, to be used in hospital and private practice. Perhaps even, dried and powdered, it might come to be mixed with vaseline, and used as an ointment, or be scattered over wounds as iodoform powder was used at the present time.

PERFORATION OF THE BOWEL FROM BIMANUAL EXAMINATION OF THE UTERUS.—Dr. E. Schwartz, of Halle, relates (*Centralbl. fur Gyn.*, Glasgow *Med. Jour.*) an interesting case of where, in a woman 46 years of age, he made a bimanual examination of a uterus containing a fibroid tumor as large as a child's head. For some years he had kept down menorrhagia by the use of the curette and astringent injections, but ascites appeared, and the patient became cachectic. Fearing malignant degeneration, he determined to examine the interior of the uterus after dilatation of the cervix by a laminaria tent. Before inserting the tent, a one in a thousand watery solution of corrosive sublimate was injected into the uterus. Immediately thereafter the patient became sick, and was taken to bed without anything further being done. An hour afterwards she had a severe rigor, and the pulse rose to 140. There was severe retching and diarrhœa, with the passage of 18 ounces of blood from the rectum. The abdomen became greatly swollen, and death occurred from collapse in 40 hours. The diagnosis made during life was that of poisoning from corrosive sublimate, due to the solution finding its way into the peritoneal cavity through some diseased part of the uterine wall. At the autopsy the uterus was found intact. Pus, blood and fecal matters were found in the abdominal cavity, and also a pea-sized perforation of the bowel a little above the ileo cæcal valve Many old adhesions existed, and a fragment on the posterior wall of the uterus was observed to correspond to the perforation in the bowel One of the kidneys was examined for mercury, but none was found in it It thus appeared that death had resulted from the tearing of the adhesion binding the posterior wall of the fundus to the bowel lying behind, and this most probably happened (when the fundus was drawn forwards) during the bimanual examination, made immediately before the injection of the corrosive sublimate solution

INTRODUCTION AND EXTRACTION OF NEEDLES — M Despris, in a lecture which he delivered at La Charite (*Gazette Medicale, Med Times*) made some interesting observations A young woman, striking a table with the palm of her hand, thrust a needle into the base of her middle finger and this, striking against the first phalanx, broke and became fixed there When seen two days afterwards, the fragment of needle had completely disappeared amidst the inflamed tissues On pressing at the base of the middle finger, however, a foreign body, pressure on which occasioned pain, could be felt An incision was made at this point, and a fragment of needle, measuring 1½ centimetres, removed by the forceps Here the incision was justified by the fact that the foreign body was firmly fixed The subject of a second case was a young woman, into whose breast a needle was driven obliquely by a blow, and entirely disappeared under the skin Guided by the patient the presence of the needle could be ascertained, but in this case an incision for its removal would be improper, for the integuments of the breast are so mobile that an incision made in the skin would not correspond to the foreign body The presence of the needle having been exactly determined, we should seize it in its length and make pressure on its two ends At one of these we may perceive a slight cracking sound, and here the patient also feels a sharper pain than elsewhere, and this is the point of the needle If we now press firmly upon the other end this point will be forced through the integument and can then be seized with a forceps An incision should never be made except when the body is fixed in the tissues, as in the first case One caution must be borne in mind, and that is, we should never attempt an extraction on the mere statement of the patient that a needle is present in the tissues, and when we are unable to verify its presence, for sometimes persons declare that they have needles in their tissues when they have not, or when we are consulted the needle may have already migrated to another part of the body, this migration sometimes taking place very rapidly

MEDICINE.

PERCEPTION OF SOUND IN AUSCULTATION (*The Stethescope as a Conductor of Sound*)—Haupt, in the *Aerzlishes Intelligenzblate* (*Medical Chronicle*), shows that while the tubular shape of the stethescope may have led the unwary in the opinion that it conducts sound like a speaking tube, the vibrations started by heart and lungs are incompetent to impart audible vibrations to a light medium like air, but can do so to a denser medium like wood or the solid skull, which may be placed in contact with the chest wall Hence it is merely the wood, and not the air in the tubular passage of the stethescope, which conducts sound, and conduction is more perfect the larger the surfaces of the instrument applied to the ear and chest wall At the same time an ordinary stethescope has certain properties of a resonator (1) by virtue of its being an open tube, (2) by virtue of its wide ear-plates, which may act on occasion as a sounding board As a hollow resonator the stethescope is a very weak instrument, being limited in its range, as a rule, to the fundamental tone and the first overtone By means of the ear-plate as a sound-board it is somewhat more efficient, and we can sometimes detect chest murmurs while the ear is held at some distance from the instrument, without touching it *But both these aids are lost as we use the instrument,* for the tube no longer acts as a resonator when we block up both ends of it, and the vibrations of the ear-plate are checked by applying the ear to it In short, the bore of the stethescope is quite superfluous, and a solid "hearing staff," with a wide ear piece and a wide chest-piece, is the theoretically perfect instrument

THE COAGULATION OF THE BLOOD —Dr Richard Norris considers this subject at some length in his address as President of the Birmingham Philosophical Society (*Birmingham Medical Review*) As the result of his investigations he affirms that changes in the fugitive discs, by which term he includes the advanced lymph discs, the colorless discs, and all the intermediate forms up to the diffused edged corpuscles, and also the free nuclei of the white corpuscles, are competent to cause the formation of fibrine without the aid of the hypothesis that the liquid of the blood holds *in* solution fibrinogen and fibrinoplastin which unite under the influence of a ferment to form fibrine At the outset he accepts the truth of Rindfleisch's statement, that "recent fibrine is invisible under the microscope, owing to its great homogeneity and transparency " The entire process of coagulation, as it occurs in the blood, may be thus summarized

1 The young discs are insoluble in the liquor sanguinis or in ¾ per cent salt solution

2 Without any apparent change, save that which induces adhesiveness and viscosity, they become converted into fibres

3 These fibres, and the young discs which give rise to them, appear to possess the properties of *plasmine*, for they are soluble in a sufficiently dilute salt solution, say ¼ per cent, as seen when the corpuscles or fibres absorb vapor in a bubble space

4 After a time these fibres become no longer soluble in ¼ per cent salt solution, or in aqueous vapor, and this insolubility comes on by continued contact with the liquid of the blood

5 This insolubility, which represents the transmu-

tation of plasmine into fibrine, is probably affected by water, which acts by decomposing plasmine and dissolving up the products of this decomposition, viz , fibrino-plastine and ferment

The fundamental error which vitiates all the experiments made to prove the presence of fibrinogen and fibrino plastine is the erroneous belief that by ordinary filtration or subsidence the whole of the morphological elements of the blood can be got rid of 1 Absolutely pure liquor sanguinis obtained in this way does not coagulate, nor do any fibrils form in it 2 When a saturated solution of common salt is added to it, and evaporation allowed to take place till crystalization of the salt occurs, no precipitate is formed, so that *plasmine* does not really exist in the true liquid of the blood 3 Finally, plasma obtained in the ordinary manner by subsidence, if submitted to capillary filtration, may be separated from the substance which induces coagulation The same is true of lymph

The whole of the morphological elements can be removed from any kind of blood by diluting it into ¾ per cent solution of sodium chloride at 0° C sufficiently to destroy the viscosity caused by the presence of albumen, and maintaining the freezing temperature till subsidence of the capsules has occurred Under these circumstances we find that the red discs sink first and take the lower place, the intermediate partially colored discs next, and the colorless last Above these is a brilliantly clear liquid Now where does coagulation occur? Not throughout the liquid, as it should do if the coagulable material were in solution, but in the upper layer of corpuscles, while the clear supernatant liquid, if removed by a pipette and placed in a separate vessel, shows no disposition whatever to coagulate This experiment demonstrates, in the most unequivocal manner, that the material which coagulates is under the influence of gravity and can not, therefore, be in solution

TRANSMISSION OF PHTHISIS —At the late meeting of the Hygienic Congress at the Hague, two important communications were read on this subject (*Progres Medical, Medical Times*) In the first of these Prof Corradi, of Pavia, draws the following conclusions 1 That the contagion of pulmonary phthisis is possible 2 Prolonged cohabitation is one of the principal conditions of its occurrence 3 Debility and all causes which diminish the power of organic resistance render it more easy 4 The possibility of transmission through the medium of clothing, goods, etc , has not been sufficiently proved 5 It is also doubtful whether the milk or flesh of tuberculous animals can give rise to the transmission, especially after culinary preparations 6 That, at present, regulation of cohabitation is the only prophylactic measure that can be had recourse to 7 Investigations should be continued in different countries, with the aid of a uniform formula

The other paper was a report from M Vallin, on the " Danger of Alimentation by Means of the Flesh and Milk of Tuberculous Animals," of which these are the conclusions 1 The tuberculosis of animals is specifically identical with human tuberculosis 2 It has been proved that the ingestion of raw tuberculous matters may engender tuberculosis 3 The injection under the skin or into the peritoneum of the blood or muscular juices of phthisical animals, is capable of determining phthisis 4 The ingestion of the raw flesh of phthisical animals is capable, in certain cases, of transmitting the disease, and especially abdominal tuberculosis 5 The inoculability of tubercle is not destroyed, except by a notably higher temperature than that attained by the central portions of roasted meats 6 The milk of phthisical cows may transmit tuberculosis, and is especially dangerous when the mammary glands are tuberculous 7 Boiled tuberculous milk is harmless 8 In order to guard against all danger, we should, at all events, provisionally prohibit the use of meat of animals, the subjects of confirmed generalized tuberculosis, with commencing emaciation 9 The habit of eating underdone meats should be discouraged, and, as a matter of security, milk should always be boiled 10 Attempts should be made to diminish the frequency of tuberculosis in animals by choice in breeding, improved stalling, isolation of infected animals, disinfection of contaminated stalls, etc 11 Tuberculosis of horned cattle should be ranged among contagious diseases affecting them, and submitted to the laws applicable to these 12 Assurance societies against tuberculous cattle should be encouraged, in order to indemnify the proprietors for losses from this cause

PEPTONISATION —An important contribution to the physiology of albumins has recently appeared from the pen of Herr Chandelon It is well known that peroxide of hydrogen is decomposed with the evolution of oxygen in the presence of fibrin and organized tissue as well as of several metals and oxides, and it has generally been stated that this dissociation takes place without the albuminoids or metals undergoing any change No evolution of oxygen occurs when other organic substances are brought into contact with the peroxide of hydrogen Herr Chandelon suspected that in this latter case there might be a reaction, though it was not perceptible because the oxygen was used up in oxidizing the organic matter In order to test this suspicion, egg albumen was suspended in water and exposed to the action of nascent peroxide of hydrogen At first sight there was no result, for neither leucin nor tyrosin was detected Nevertheless, it was observed that the albumen had undergone some change, in that the volume of the precipitate produced by boiling the mixture gradually diminished, whilst the liquid after separation of the coagulum by filtration gave upon treatment with alcohol a copious precipitate, which, upon being redissolved in water, gave all the reactions of an albuminoid substance Further investigation left no doubt that the albumen had, partly at least, been converted into peptone, it was therefore of interest to study the reaction more closely, to isolate and identify the intermediate products Herr Chandelon found that peroxide of hydrogen in the nascent state peptonises egg albumen, and peptonisation may be considered a phenomenon of hydration, an opinion that is supported by the formation of peptone from albumen by reagents capable of fixing water, such as dilute acids, alkalies, etc., and the reconversion of peptone into albumen by a dehydrating material like acetic anhydride. It is suggested that the albumen (anhydride) gives up an atom of oxygen to the peroxide (H_2O_2), just as oxide of silver does, and that the two groups that had been united by the oxygen then combine with two hydroxyls. The conversion takes place by the same process as in digestion with peptic ferments. The author puts forward the hypothesis that the digestive ferments promote digestion by the production of peroxide of hydrogen.—*Lancet*.

THE CONDITION OF THE FUNDUS OCULI IN INSANE INDIVIDUALS.—Drs. J. Wigglesworth and T. H. Bickerton have published, in two recent numbers of *Brain*, the results of investigations at the Rainhill Asylum extending over a period of two and a half years. There were 313 patients satisfactorily examined, of these 66 were general paralytics and 247 non-paralytics. Among the latter (mania, 82 cases; melancholia, 49; mental stupor, 2; dementia, 61; epilepsy, 48; imbecility without epilepsy, 5). The optic discs and main retinal vessels were perfectly normal in 83 per cent., and among the remaining 17 per cent. the changes were in some cases doubtful, and in some others were clearly due to causes, such as Bright's disease, which had no direct connection with the patients' lunacy. Among the general paralytics, decided changes were present in 23 per cent., and if to these cases be added a few more in which the existence of change was doubtful, the percentage rises to 35. They come to the following conclusions:

1. That in insanity proper (including all forms *other than general paralysis*) changes in the fundus oculi are found in a small minority of cases, but that when allowance is made for changes depending upon associated constitutional conditions, errors of refraction, etc. the number of cases in which a connection between the mental (cerebral) state, and the accompanying change in the fundus oculi, can be so much as suspected, is very small.
2. As a corollary, that in insanity proper no connection can be traced between the condition of the fundus oculi and the patient's mental state.
3. That in the majority of cases of "General Paralysis of the Insane," the fundus oculi presents a perfectly healthy appearance.
4. That in a minority of cases clear and precise lesions are found.
5. That these lesions fall into two main classes, the one tending in the direction of slight neuritis, the other in that of atrophy.
6. That in the former class the affection declares itself as a hyperæmia of the discs, the edges being softened and indistinct, so that in some cases they can be traced with difficulty or not at all; and that these conditions tend if the patient live long enough to be replaced by atrophy, so that at length the complete disorganization of the nerve may take place. The changes are essentially chronic in their course.
7. That though atrophy of the optic nerves may thus succeed to a slight chronic interstitial neuritis it is also not unfrequently primary *at the disc*; the atrophy may be complete, the patient becoming quite blind.
8. That the pathological basis underlying the appearances of slight neuritis may be broadly characterized as a tendency to overgrowth in the connective elements of the nerve; the trabeculæ not only getting greatly hypertrophied, but the neuroglia corpuscles also becoming very large and numerous; these parts thus grow at the expense of the nervous elements, which subsequently atrophy.
9. That in the cases of primary atrophy, the pathological appearances eventually reached, though somewhat similar, may possibly take place in the reverse order *at the disc*, the nerve fibres being the first to dwindle, and the fibrous elements, trabeculæ, etc., subsequently taking on increased growth.
10. That in a considerable proportion of the cases in which atrophy of the optic discs is met with, spinal symptoms are prominent in the disease, these symptoms pointing in the direction of posterior or lateral sclerosis of the cord; but that this connection is by no means invariable.

Among these cases, having an average age of 55 years, 13,7 per cent., presented opacities of the lens, slight or considerable, which is a much higher percentage than would be found in the population at large of the same average age, and furnishes an illustration of the general impairment of nutrition common in the insane.

A HAIRY VACCINATION.—M. P. Diday (*Lyon Medical*) describes the case of a healthy child of 11½ months, that was vaccinated with animal vaccine furnished by the municipality of Lyon. The matter was introduced by two punctures on the anterior surface of the middle third of each thigh. The local inflammation was quite considerable, but the vesicle developed regularly and ran its proper course. Sixty days later, however, a crown of hairs made its appearance about the cicatrix. From being delicate, downy and nearly colorless at first, they soon took on length, color and body. Four months later there was presented the curious spectacle of a still reddish cicatrix surrounded by a double and triple row of hairs of 6 to 8 millimeters in length, the color of which, like the hairs of a red cow, stood out in bold contrast against the absolutely smooth skin of the child. The plate which carried the matter, being carefully examined, was found to contain three or four very small hairs visible to the naked eye.

THE value of crushed ice as a dressing for burns and scalds first pointed out by Sir James Earle, is confirmed by Dr. Richardson. The ice, after being reduced by crushing or scraping to a fine state of division as dry as possible, is mixed with fresh lard into a paste, which is placed in a thin cambric bag and laid upon the burn. This is said to banish all pain until the mixture has so far melted that a fresh dressing is necessary.

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any date The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, JANUARY 3, 1885

EXPLANATION —The issue of the 26th number of volume three, dated December 27th, was delayed several days by the failure of a single galley of proof to be delivered at the proper time, through the post-office The list of names of Permanent Members published in compliance with the by-laws of the Association, every third year, also occupied two pages more than was expected, and consequently crowded out the few editorial paragraphs prepared for that number The title page and very full index to the volume, which are so placed in the middle of the number that they can be readily removed and placed in front of the volume by the binder, and the convenience, for reference, of the complete list of members of the American Medical Association, will make the number a very valuable one, notwithstanding the absence of all ordinary reading matter All but a very few of the papers presented in the several Sections of the Association during the recent meeting in Washington, have now been published in full in the JOURNAL, many of them accompanied by interesting discussions The publication of the few that are left, will be completed in the next three or four weeks, but the valuable papers from other sources already accumulating on our hands, and the more extensive arrangements for reports and correspondence from the chief medical centres, both in this country and in Europe, furnish ample guarantee that the pages of the JOURNAL will continue to be filled with matter of interest and importance to those engaged in every department of the profession As the present number commences another volume, this is a good time for new subscribers to send in their names and money for the year 1885

PULMONARY SYPHILIS —This is a manifestation of syphilis which it is safe to assume few general practitioners have ever recognized This is due both to the rarity of its occurrence in adults, and to the difficulty attending its positive diagnosis The occurrence of a syphilitic form of phthisis was recognized by Morgagni, while Portal, Morton, Graves and Stokes admitted the likelihood of such a condition, from their observation of the clinical fact that some cases of bronchial catarrh were greatly benefited by mercury It was, however, left to Virchow, Wagner, Lorain, Robin and other contemporaneous investigators to describe minutely the pathological changes due to pulmonary syphilis Their researches were made chiefly upon the lungs of still-born syphilitic infants The latest contribution to this subject is by Dr A Hiller, in the Charite Annalen, Berlin, 1884, volume 9, page 184, and recapitulated in *Centralbl. f d Med Wiss*, October 4, 1884, page 702, as follows The anatomical appearances of pulmonary syphilis described by most pathologists are an increase of the interlobular and interalveolar connective tissue, resulting in induration of the part, with, in rare instances, retractions and wrinklings of the surface, the lobulated lung (*gelappte lunge*) of the Germans In addition, gummata are found, either isolated or in groups from the size of a hempseed to that of a goose's egg Hiller doubts the occurrence, as stated by some, of a syphilitic infiltration of an entire lobe, similar to that of croupous pneumonia. On the other hand, he coincides with Virchow, Webber, Lorain and Robin in recognizing a process known as "white hepatization," which is analogous to the catarrhal pneumonia of children, and may occur in adults as well as newly-born infants In this condition, it will be remembered, the terminal bronchioles and alveoli are distended with altered epithelial cells Wagner, on the contrary, holds that the alveolar walls thicken and gradually obliterate the alveolar spaces, without the epithelia taking part in the process In some instances this cellular infiltration is complicated by an œdematous saturation of the parenchyma, constituting what is known as a gelatinous infiltration The cavities not uncommonly found in syphilitic lungs Dr Hiller regards as bronchiectatic, herein differing widely from the view generally entertained, viz that they are the result of the breaking down and expectoration of gummata.

Some writers have described an acute form of phthisis syphilitica which manifests itself by a rapid disintegration of the pulmonary tissue, like that of tuberculosis Dr Hiller, however, after a critical perusal of the literature of the subject, draws the conclusion that, in the cases hitherto reported as instances of rapid syphilitic consumption, adequate proof is wanting of there having been a real ulcerative destruction of the lung structures, the same as takes place in pulmonary tuberculosis, and hence that a rapid consumption of the lungs from syphilis does not exist He regards the cases in which the diagnosis was confirmed by an autopsy as nothing more than a combination of constitutional syphilis with true tuberculosis, and thinks that where cavities were found they were bronchiectatic Dr Hiller has collected and tabulated all of the published cases, 87 in number, in which a post-mortem examination is recorded Of these, 29 are regarded by him as having been either genuine tuberculosis or a combination of it with syphilis or cancer The remaining 58 were undoubtedly examples of syphilitic phthisis In typical cases the most constant pathological changes consisted of that increase of the interlobular and interalveolar connective tissue already mentioned, or of fibrous induration of that portion alone of the pulmonary structure immediately surrounding the bronchial tubes Next in the order of their frequency were found diffuse lobular consolidation, gummata, and circumscribed patches of peribronchial thickening, called by the Germans " nodular bronchopneumonia " In non-typical cases, there had existed a pneumonia either of traumatic origin, as set up by foreign bodies in the air passages, or a croupous pneumonia which had been modified by the preexisting syphilis

The author then details two cases occurring in his own practice of genuine syphilitic phthisis, in which he was able to watch the progress of the disease to the end, and to obtain post-mortem examinations Although there were the usual symptoms of a pulmonary complaint—emaciation, cough, dyspnœa, etc , the course of the disease did not correspond with that of tubercular consumption The anatomical characters were likewise found to differ from those of tuberculosis, agreeing fully with those of syphilitic phthisis already described

The diagnosis of pulmonary syphilis can never be determined, *intra vitam*, with absolute certainty, but only conjectured if there exist at the same time the characteristic lesions of constitutional syphilis To this end laryngoscopical and rhinoscopical examinations should never be omitted In differentiating between a given case of suspected phthisis syphilitica and tuberculosis, the detection of tubercular bacilli in the *sputum* would, in Dr Hiller's opinion, decide the question

Lancereaux considered a case of phthisis as syphilitic if, in addition to the presence of characteristic lesions of the mucous membranes, the pulmonary affection was unilateral, with signs of consolidation, and it might be of excavation But Wilson Fox justly remarks that a syphilitic disease of the lungs may be bilateral

Syphilitic phthisis possesses great therapeutical interest Some clinicians have seen marked benefit result from the administration of mercury and iodide of potassium, while others have noted no improvement

In a case of this affection which we had the privilege of observing in von Ziemssen's clinic at Munich, the process was situated in the middle lobe of the right lung, and Ziemssen then remarked that according to his experience this was the most frequent site Probably no weight is to be attached to this statement

MISSING NUMBERS OF THE JOURNAL —As the preceding number completed volume three of the JOURNAL of the Association, it is a good time for every member and subscriber to look carefully over his file, and see if it is complete and all the numbers in good order If not, send us a postal card at once, stating the *numbers* missing or injured, and we will supply them without delay It is much more convenient for us to do this now, before the extra numbers of the volume are tied up and put out of the way, and there is much greater certainty that numbers wanted are at our command than will be the case six or twelve months hence

FEWER MEDICAL STUDENTS IN THE MEDICAL COLLEGES —It is stated in some of our exchanges that there are not as many medical students, in the aggregate, attending the medical colleges throughout the country during the present winter as during the past two or three years This is probably largely due to the extreme stringency in the monetary and business affairs of the country

OHIO STATE SANITARY ASSOCIATION —The Second Annual Meeting of this organization will be held at Columbus, Ohio, on February 5 and 6, 1885 Full programme for the meeting will be issued in due time by the Secretary, R Harvey Reed, M D , of Mansfield, Ohio

PROF DARLING, for many years well known as an eminent teacher of Anatomy in the Medical Department of the University of New York, died on the 25th inst

DR EDWARD JARVIS, one of the most philanthropic and deservedly eminent members of the profession in Massachusetts, recently died in Boston at the advanced age of 81 years

SOCIETY PROCEEDINGS

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated meeting Thursday, Dec 4, 1884 The President, R A Cleemann, M D , in the chair

Ovarian Tumor —Dr Drysdale presented a polycystic ovarian tumor which he had removed that morning He had first seen the patient with Dr C R Prall, May 5, 1884 She was a married lady, 59 years of age, pale, thin and delicate looking She had had eight children, the youngest of whom was then sixteen years old With some trifling exceptions her menstruation had been perfectly natural until two months before, since then she had had a constant and sometimes profuse discharge of blood from the vagina, which still continued She first discovered the tumor in March, 1884

On examination Dr Drysdale found a semi-solid, smooth walled, globular tumor, occupying the lower part of the abdomen and reaching nearly to the umbilicus It was freely movable, did not fluctuate, but was elastic and a little tender to pressure Vaginal examination revealed a lacerated cervix The sound entered the uterus two and a half inches, taking a direction to the right of the tumor On deep pressure the end of the sound could be felt at the lower part of the right border of the mass While the sound was in the uterus the tumor could be moved freely without affecting it Dr Drysdale diagnosticated a multilocular ovarian tumor

By the 5th of June, one month later, it reached nearly to the ensiform cartilage From this time it increased rapidly in size, and when it was removed filled the abdomen, pressing the lower ribs outwards It proved to be a multilocular tumor of the left ovary

His object in bringing it before the Society was to obtain an opinion from the members as to the cause of a phenomenon which was observed in the early stage of the growth When the patient first noticed the enlargement, she found that when she would lie on her right side, the tumor, as if lighter than the surrounding parts, would ascend to the left, and when on her left side, would rise to the right She informed Dr Prall of this and he naturally supposed she was mistaken, but a careful examination of the tumor while she changed her position verified her assertion As the mass increased in size, this peculiar change of position ceased, and when the abdomen was opened nothing could be found to account for the singular behavior of the growth

Dr Parvin inquired about the length of the pedicle and the weight of the tumor

Dr Da Costa has a case under observation in which the condition of great mobility is present

Dr Drysdale replied that the pedicle was extremely short The tumor weighed thirty-five pounds and was multilocular in character At the time of its removal he could not determine any fluctuation Every parovarian cyst is movable in its early stages, He intended to call attention to the peculiar and, to him, unaccountable motion of this particular cyst

Dr Chas Meigs Wilson presented the histories of three cases in which the hydrochlorate of cocaine had been used with the hope of obtaining local analgesia, and reported negative results

Malignant Disease of Ovaries, Cystic —Dr D Longaker exhibited the specimens with the following history The subject from whom this specimen was removed was a German woman, 63 years old She had been married the last 27 years of her life, and was sterile During the last five months she was under the care of Dr Jos S Gibb, of this city, at whose request I first saw her and by whose kindness I am enabled to report the case The menopause was established at fifty-three, ten years ago The patient had always enjoyed fair health, but four years ago she again began to have a bloody discharge from the vagina For this she consulted a doctor and was soon well again The date of the onset of her last illness was indefinite It was insidious, and the particular symptom for which she desired relief was inability to micturate, this was found to be due to suppression of the secretion of urine, as the bladder was empty There was also decided interference with nutrition Her appetite and strength failed rapidly The urine was found to contain a very small amount of albumin She had occasional nausea and bilious vomiting and diarrhœa She suffered with pain in the left side of the abdomen On examination the doctor discovered a hard tumor, nodulated, to the left of the uterus, projecting upwards into the left inguinal region, it was adherent and but slightly movable She was first seen by me on Oct 6 At this time she was in bed, suffered from orthopnœa and was unable to rest or lie down Her abdominal cavity was greatly distended by a fluid which had accumulated rapidly in the previous three or four weeks Œdema of the ankles had been noticed a few days before Her general appearance was decidedly anæmic and cachectic The abdomen was very tender to palpation, especially over the left inguinal and hypogastric regions The flanks were bulging and were flat on percussion The tumor could be indistinctly outlined, immobile, lying in contact with the left ilium, dipping down into the true pelvis behind and to the left of the uterus and distinct from it The cervix had undergone senile absorption, but from the os externum a small polyp was found hanging in the vagina Oct 7 she was tapped, a large bucketful of a brownish-red fluid, of specific gravity 1020, was removed On microscopic examination it was found to contain blood and various corpuscles and epithelium (The ovarian cell was not found) It contained paralbumin

A more careful examination now revealed a circumscribed, clearly defined, firm, nodulated growth in the region already indicated It was found adherent, and conld be only slightly displaced It was of the size of a large fist Palliative treatment was continued, but the patient's condition gradually grew worse There was again a slight accumulation of fluid in the abdominal cavity She was subject to attacks of bilious vomiting and diarrhœa alternated with constipation There was no apparent increase in the size of the tumor, and during this period pain was not a marked symptom At no time was there acute suffering She died of exhaustion, November 27

Autopsy on the next day by Dr Gibb, in the presence of and assisted by Dr E W Holmes and myself The subcutaneous fat had been almost entirely absorbed The parietal peritonæum was covered with lymph, with numerous nodular elevations in various stages of organization The intestines had contracted numerous adhesions The capsule of the liver was one eighth inch thick In the mesentery there were also deposits of lymph, some of which were more recent and less organized The abdominal cavity contained about two quarts of fluid, the same as that already described

On the left side, extending two inches above the pelvic brim, was found a tumor apparently solid, but which, on close examination, was found to be cystic One of the largest of the cysts had ruptured—the opening was found at the posterior-inferior portion of the growth It was not recent The capacity of the emptied cyst was about four ounces The tumor dipped down into the true pelvis between the broad and utero sacral ligaments of the left side It was adherent, and was removed with great difficulty On incising and freely opening the cyst some coagulated fibrin was found, the remains of a hæmorrhage into the cavity When it was entirely removed it was found to arise from the left ovary The oviduct was slightly dilated, and its fimbriated extremity was adherent to and spread out over the tumor

On the right side, in the broad ligament, there is a cyst slightly larger than the tumor Its contents are dark and very dense It is very heavy The cyst is surrounded by a dilated Fallopian tube containing a clear, transparent fluid of a bluish-white hue At its widest part it is an inch in diameter Behind and below this cyst is found the right ovary It is adherent, flattened out and seems continuous with it The entire specimen was carefully dissected out as it is shown From its rapidly fatal tendency, with the macroscopic appearance of the tumor, there is very little doubt that a microscopic examination will reveal it to be malignant Though, perhaps, possessing the greater pathological interest, there are also a few points in the case which may concern us in regard to diagnosis and treatment Study of the fluid at first caused a suspicion that it came from a cyst Its high specific gravity and the chemical tests to which it answered favored such a view But this was entirely at variance with the history of rapid accumulation and absence of physical signs indicating the existence of a large cyst It was apparent at the autopsy that an attempt at extirpation could only have hastened the fatal result The specimen was referred to a committee for further investigation

THE Cincinnati branch of the Western Society for the Suppression of Vice last year seized and destroyed over nine hundred pounds of obscene books and 165,900 pamphlets, circulars and cards, 1,100 photographs and 137 negatives

STATE MEDICINE

REPORT OF LAWS REGULATING THE PRACTICE OF MEDICINE IN THE UNITED STATES AND CANADA.

BY RICHARD J DUNGLISON, A M , M D , OF PHILADELPHIA, PA , AND HENRY O MARCY, A M , M D , OF BOSTON, MASS

Read before the American Academy of Medicine, at its Annual Meeting at Baltimore, Md , Oct 29 1884 approved for publication by the Council

Since the Annual Report of your committee was presented to the Academy, at its meeting in New York, in October, 1883, but little change has been effected in the legislation already operative in many of the States, or in the introduction of new laws regulating the practice of medicine in States or Territories in which the public were not already legally protected Virginia is the only State in which a Legislature has, during the year past, contributed anything of general or special interest to the sanitarian or humanitarian in the restriction of unqualified practitioners

In some of the States and Territories the Legislatures meet biennially, and have not, therefore, had the opportunity offered them of passing such measures as are urgently demanded in the interest of the public health Whether they would accomplish anything remarkable in this direction, even if the most abundant opportunities were available, it would be impossible for any one, familiar or unfamiliar with the general uncertainty and crookedness of methods of legislation, to conjecture

Under these circumstances, there being so little for your committee to report in regard to additional legislation restrictive of medical practice, it has seemed to them that it would be appropriate to take a brief glance at the present condition of the laws bearing upon the subject, and to secure an expression of the views of those actively interested in the various sections of the country in their efficient working With this object an extended correspondence has been entered into with Governors and Secretaries of States and Territories, with Secretaries of State Boards of Health and of State Medical Societies, and with other gentlemen interested in measures of public sanitation, and the replies elicited offer an excellent medium for an intelligent appreciation of the condition of State legislation, at the present moment, on this important subject

Dr J L Cabell, of the University of Virginia, President of the National Board of Health, who kindly furnishes a copy of the new law, makes reference to the fact that in Virginia—

> "Prior to the passage of this Act any person who chose to call himself a physician, and was assessed with a license tax as such, had any privilege that was accorded to regularly graduated physicians The new Act has some defects, which it is hoped may be corrected by future legislation, but has one great merit, in requiring *all* candidates for practice, *whether graduates or not*, to undergo an examination by the Board of Medical Examiners, to be appointed by the Governor, on the nomination of the State Medical Society"

Dr James E Reeves, Secretary of the State Board of Health of West Virginia, asserts that—

"No statute passed by a Legislature was ever more heartily welcomed by the whole people than has been the law regulating the Practice of Medicine and Surgery in West Virginia Its operation from the date of its passage, March 8, 1881, to the present, has been a continued success—a blessing to every citizen of the State, and a strong arm to uphold the dignity of the medical profession within our borders No changes in the law are contemplated by our Board We are satisfied to 'let well enough alone'"

Dr L Julian Picot, Secretary of the State Medical Society of North Carolina, mentions, as a feature of the law in force in that State, that under its provisions—

"Practitioners are not allowed to collect bills by legal process unless licensed by the State Board of Medical Examiners The Board is elected every six years by the State Medical Society The present law is not satisfactory to the better class of the profession, nor will it be until it is made a misdemeanor to practice without a license An effort will be made to secure the passage of an Act to this effect If successful, then the profession of this State will be happy"

Dr A S von Mansfelde, Permanent Secretary of the Nebraska State Medical Society, writes as follows

"The law, as it now exists, is inoperative, because any infringement upon it becomes a criminal offence, the common law providing that, in such cases, the defendant shall be faced by the witnesses of the prosecution To procure witnesses from distances, the places where bogus diplomas are manufactured, as, for an example, Philadelphia, Cincinnati and St Louis would involve a cost to which neither individuals nor societies are equal, therefore, the failure of a law otherwise good enough I shall surely introduce the Illinois law at the coming session of our Legislature, January, 1885, and have some hope of its passage"

Dr C C Fite, Secretary of the Medical Society of the State of Tennessee, states that

"There are no laws of any kind on medical practice in Tennessee, and not likely to be soon, as the profession in this State is divided on the question We have received a considerable addition to our ranks recently, by the enforcement of laws in other states forcing the 'ne'er do wells' to seek more hospitable climes, and Tennessee welcomes them all"

In commenting upon the working of the law regulating the practice of medicine in the State of Louisiana, Dr Lucien F Salomon, of New Orleans, writes thus intelligently and fully

"The act now in force has several defects, which it would be well to point out

"In the first place, section 3 allows the privilege of registration to persons who have been practicing in the State for more than *five* years prior to the passage of the act, regardless of qualification, and the result has been that every charlatan, quack, and unqualified person who pretends to practice medicine, or styles himself 'doctor,' has hastened to take advantage of and profit by this privilege, while many regular physicians, possessing diplomas from reputable colleges, have either refused or neglected to register, the neglect or refusal being, in a great measure, due to this provision which places upon an equal footing with them irregulars, 'herb doctors,' quacks and impostors Out of a total of 1,027 physicians in the State of Louisiana, 758 have registered, of whom 141 are without diplomas, and have been *legally* registered, after having made affidavit of five years' practice In the City of New Orleans there are about 270 persons practicing or claiming to practice medicine Of these, 237 have registered, 25 of whom are without diplomas Of course, the defect existing in section 3 will, in time, correct itself The legislature evidently did not intend to make the law retroactive, inasmuch as by so doing it was said that some who had been practicing without diplomas for many years might be deprived of their livelihood, but the evil has been saddled upon the people of the State by this saving clause, and there is no present remedy

"Another grave and striking defect is found in section 6 This section provides that action shall be brought for violation of this act in the name and for the benefit of the Charity Hospital at New Orleans But the Board of Administrators of the Charity *Hospital* have never attempted to prosecute, probably because, it may be, that they do not consider it within their province to do so, and probably because registration is demanded at the office of the State Board of Health, and until very recently no effort has been made on the part of the Board of Health to inform the proper officials of the Hospital of the names of persons practicing in violation of the law, and unless so done there is no way of reaching delinquents Besides, the Charity Hospital (or any one else, for that matter) does not appear to be very desirous of prosecuting, for the law, while providing a penalty, prescribes no method of enforcement The last line of Sec 6 reads, 'he shall be subject to criminal prosecution, and be punished in the manner prescribed by law for violations of this act' Now this would answer very well, and make the law effective were any such prosecution provided for, but, unfortunately, nowhere upon the statutes of Louisiana can any such provision be found, and, as a consequence, the law is to this extent inoperative This is an oversight which the profession of the State, through the State Medical Society, has endeavored to have corrected, but at its last session the Legislature neglected or refused to make any amendments to the existing law or take any action whatever in regard to State Medicine With a view to making the present law as effective as possible, and to endeavor to obtain a complete registration of physicians in the city of New Orleans, at least, I, as a member of the Committee on Registration of the Board of Health, a short time since introduced a resolution, which was unanimously adopted, providing for the enforcement of the act as far as could be done under existing circumstances Said resolution *provided that, under the provision of Sec 6 of the act,* the Board of Health would refuse to accept certificates of any nature whatsoever, or recognize the same as legal, when issued by any physician who had failed to register, or by any person whose name did not appear upon the books as having duly registered, in compliance with the law (The Board of Health is by law constituted the registrar of births, marriages and deaths, for the city of New Orleans) The result has been that since the adoption of this action by the Board 41 have registered, bringing the total number registered in New Orleans to the figure stated above, 237

"At the same time the Secretary of the Board of Health was instructed to forward to the Administrators of the Charity Hospital the names of those persons practicing without having registered, with the request that the attorney of the Hospital be instructed to prosecute by civil action, and attempt to recover the prescribed fine for the benefit of the Hospital But nothing has as yet been done to this end, nor has any reply to the request been received by *the Board of Health* Were the power given to this Board to prosecute, I think that violations of the act would be less numerous, for the amount to be recovered in fines, and the desire to protect the public from unqualified and ignorant practitioners, would be an incentive for active measures Still, taken all in all, the law as it now exists is a vast improvement upon our former condition, when there was nothing to deter peripatetic quacks and pretenders from gulling and fleecing a credulous public"

From Dr G D Hersey, Secretary of the Rhode Island Medical Society, we learn that

"Through the efforts of the Society one much needed reform has been secured, by which the old coroner system has been abolished, and, instead there has been instituted a system of Medical Examiners The law went into effect July 1, 1884, and gives satisfaction"

Dr E P Fraser, Secretary of the State Medical Society of Oregon, expresses the regret that they have no medical legislation whatever, as yet They have a bill ready to present at the next session of the Legislature, and hope to secure its passage

The prospects for successful medical legislation in

Massachusetts seem much more encouraging, now that the State Medical Society has interested itself actively in the matter, by entrusting it to the hands of a large and influential committee of that body The effort to induce legislative action last winter failed, as it had previously done, but it is believed that the profession will now enter more earnestly into the prosecution of the work, with better prospects of success

Dr Walter Coles, of St Louis, Missouri, writes as follows —

> "The law now in force is not all that might be desired, but was the best that could be secured by way of a start It has served a good purpose in interesting the more progressive element of the profession in the importance of legal restrictions, etc, and will, undoubtedly, prove an efficient entering wedge to something better and more efficient, in the near future"

Dr William Elmer, Jr, of Trenton, Corresponding Secretary of the State Medical Society of New Jersey, states that—

> "The law works fairly well in this State, although there is no authorized power to prosecute offenders unless by individually assuming the trouble and unpleasantness therefrom resulting"

Dr P H Millard, Secretary of the State Board of Medical Examiners of Minnesota, states that—

> "In Minnesota the Supreme Court has very recently affirmed the constitutionality of the Act in all its features This decision is important, as the Act is similar to those of Illinois, West Virginia and Missouri, and may influence and confirm the action of those States in the case of delinquents or of those answerable to the law The law in Minnesota is said to be giving very general satisfaction"

Dr J P Booth, Secretary of the Medical Society of New Mexico, speaking of the law which was passed in March, 1882, regards it as a good one, so far as it goes, but it does not go far enough

> "By it, those desiring to practice are required to present their diplomas for examination to the Board, or if they have no diplomas, to appear in person before the Board and undergo a satisfactory examination in Anatomy, Chemistry, Physiology, Surgery, Materia Medica and Therapeutics and Obstetrics The Practice of Medicine is not included *The Board consists of three regulars*, two homœopaths and two eclectics The law paradoxically prescribes that this body, in its rulings and actions, shall be governed by the Code of Ethics of the American Medical Association It is the aim of the Southern New Mexico Medical Association, of which I have the honor to be Secretary, to amend the law whenever it is possible to do so Two years must elapse, however, before much can be done, as the present Legislature at its last session passed a law to retain their seats until 1886"

Dr J A Dibrell, Jr, Secretary of the State Board of Health of Arkansas, does not speak in any terms of enthusiasm of the condition of medical legislation in that State He states that—

> "The present Act is by no means satisfactory The medical profession of Arkansas, for a number of years, made efforts to secure the passage of a bill to regulate the practice of medicine Such efforts were always defeated by the influence brought to bear by quacks upon the members of the Legislature The bill, or act, now in force was passed in 1881, and it was thought it would be better than none at all, and that is about all that can be said in its favor"

Dr M W Russell, Secretary of the New Hampshire State Medical Society, writes that the law of that State works very well, with but little friction, and gives general satisfaction

Dr Charles D Smith, Secretary of the Maine Medical Association, states that efforts will doubtless be made by a committee of the State Medical Society to secure a law establishing a State Board of Health and Registration, at its next session

Dr J S Richmond, Secretary of the Vermont State Medical Society, writes as follows —

> "In 1876 a law was passed requiring practitioners of medicine to obtain a license of a Board of three Censors appointed by our State Society, or of a Board of Censors appointed by Chartered County Societies In 1878 some *tinkering* was added In 1880 our Society, not liking the law, did not appoint censors, intending to treat the law as a dead letter Last June *the law was brought before our semi annual meeting* We found that the old Board of Censors, by the law, held their office until others were chosen I have supplied the Board with blanks, and the profession very generally have a license We anticipate that a State Board of Health, measures to enable us to control diseases, etc, will come before our Legislature, which meets Oct 1, 1884"

Dr W G Brownson, of New Canaan, Connecticut, writes that since our last annual report to the Academy—

> "An attempt was made, with the view of suppressing irregular traveling and advertising quacks, but it was defeated in the Legislature A bill making it a duty to label all patent and proprietary medicines, was also defeated"

Dr George W Cox, Secretary of the State Board of Medical Examiners of Colorado, expresses the belief that—

> "The State Board of Health will endeavor to have more stringent laws passed at the next meeting of the Legislature"

Dr W J Burt, Secretary of the Texas State Medical Association, writes to say that—

> "The present law is not satisfactory, and the State Medical Association has drafted a bill which will be presented to the next Legislature, in January, 1885"

Dr Hector Galloway, Secretary of the Dakota Medical Society, states that—

> "An effort was made by our local society (Cass County Medical) to obtain from the last Legislature an Act similar to that of Pennsylvania, requiring registration, etc, but the consideration of it was not reached before the Legislature adjourned An effort will probably be made next winter to have the matter taken up and considered"

Dr J T Reeve, Secretary of the Wisconsin State Board of Health, writes as follows —

> "No change has been made in the laws which regulate the practice of medicine in this State since the date of the last meeting, except that a section of a new law requires medical men to report contagious diseases occurring in their practice I am not aware of any movement looking to a change in the laws regulating the practice There is, however, a growing interest in this subject, and an increasing belief that there ought to be greater restrictions upon the practice of medicine"

Dr William Marshall, of Milford, Delaware, states that—

> "The law of Delaware, now on the statute book, regulating the practice of medicine, is generally regarded"

The same remark may be made in regard to the law of California

On the other hand, Dr James A Gray, of Atlanta, writes to say that—

> "The law in force in Georgia is very unsatisfactory to a large number of the best physicians, and yet there seems to be little hope that anything better will be enacted in the near future"

Dr E S Elder, Secretary of the Indiana State Board of Health, thinks it probable that—

> "An effort will be made to pass a medical law at the next ses-

DOMESTIC CORRESPONDENCE.

DETROIT, MICH., December 15, 1884.

TO THE EDITOR OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

The JOURNAL of the 29th ult. contained a report of a case of "Unilocular Ovarian Cyst weighing ninety-five pounds, successfully removed by Dr. George E. Ranney, of Lansing, Michigan." In this report Dr. Ranney claims to have performed the operation, and generously gives Dr. Post, of Lansing, and myself, credit for valuable assistance which we rendered him. Inasmuch as the *Medical Age*, of this city, in its issue of October 25, contained a notice of this same case in which I was credited with having performed the operation, assisted by Dr. Ranney and others, the discrepancy has called forth sufficient comment to warrant, if not, indeed, to demand a statement from me. This statement I am constrained to make rather in the interest of truth and honesty than from a desire to enter into an unseemly controversy.

I was waited on by Dr. Ranney on the 6th of October last, and received from him a description of the case referred to, and a statement of his relations to it. He had assumed charge of it, and had advised an operation, which he had engaged himself to undertake. It was one the importance of which he fully realized, and the realization convinced him of the advisability of having present at the operation some operator of experience. In doing me the honor to request me to act in this capacity, it was expressly understood that, inasmuch as he had undertaken to perform the operation, he was to be permitted to identify himself therewith with sufficient prominence to satisfy the friends of the woman "that he was not a dead-head in the enterprise." The doctor's exact words, as I distinctly recall them, were: "I wish you to let me do as much as possible, for the family expect me to operate." On the strength of this request I considered myself engaged to operate. Had I thought of the possibility of his utilizing the case as the head of a list of possible future ovariotomies, I should certainly have declined any connection with it. I had known the doctor for about twenty years, and had learned to regard him highly as a citizen and as a general practitioner, but his fame as an ovariotomist had not been sufficiently established to warrant me in acting under his instructions in a case of the importance of that regarding which he consulted me, promised to be.

Pursuant to our engagement, I met Dr. Ranney at Grand Ledge on Oct. 8, and subsequently learned that the fact of my intended presence had been carefully kept from the knowledge of both the family of the woman and the local profession. But in view of our previous understanding I did not think this as strange as it might have seemed under ordinary circumstances. According to agreement, I had, furthermore, taken with me from my own office every instrument to be employed in the operation, even the sponges and the silk, which latter I had myself properly antisepsized by boiling, and not by means of carbolic acid, as one would infer from Dr. Ranney's statement it had been treated. Assistants, I submit, are not usually expected to furnish all the essentials to an operation. In addition to such antiseptic precautions as I took, the room, as stated by Dr. Ranney, was treated to a vigorous application of carbolized spray, produced, by the way, by my large Weir's Atomizer, which the doctor took with him from my office on the date of his call on me. I saw the patient for the first time when she was placed upon the table. Having made the necessary examination to confirm Dr. Ranney's diagnosis, she was etherized and I proceeded to make the abdominal incision. I then passed a sound over the tumor to determine the adhesions. I next introduced the trocar into the cyst, the walls of which were, however, so friable and the contents of which were so jelly like as to prevent the evacuation by this means. The tumor, by the way, was multilocular instead of unilocular or monocystic, as, of course, any ovariotomist of experience would expect it to be from its size and after having discovered the peculiar consistency of its contents. Owing to the character of the tumor, the cyst was broken up and its contents were evacuated by the hands. On attempting the removal of the tumor the abdominal opening was found to be rather small, and under my direction Dr. Ranney enlarged it. After the tumor had been sufficiently reduced to permit its extraction, I applied Storer's clamp shield at the junction of the pedicle and the cyst. After this I passed a dull perineal needle, armed with the ligature, through the pedicle and secured the ligature with a Peaslee's chain knot. After severing the stump I cauterized the end thereof with my Paquelin's thermo cautery which was heated by Dr. Post. This thermo cautery is what Dr. Ranney in his report calls "a hot iron." After cauterization, the vessels of the stump (three in number) were felt to be pulsating so energetically beneath the ligature of the pedicle, as to lead me to believe it would be best to "make assurance doubly sure." I therefore seized the exposed ends and requested Dr. Ranney to ligate them. I would especially note the fact, that the cautery was applied before the arteries of the pedicle were ligated, not after, as one would infer from the doctor's report. The contents having escaped through the broken walls of the cyst, into the cavity of the abdomen, it was found necessary to scoop them out with the hand and afterwards to employ the sponge, as the safety of the woman was very closely dependent on the success thus achieved. Dr. Ranney rendered me valuable assistance in this step of the operation and I desire to acknowledge my indebtedness for his dexterous manipulation of the sponge. This cleansing of the abdominal cavity consumed over two hours in its completion. After the above steps had been completed, I closed the wound by means of silver wire, first placing a flat sponge (as is my custom) over the intestines to catch the blood from the needle wounds. After applying the necessary dressing to the wound, I turned the case over to Dr. Ranney, and, doubtless, its successful outcome is due to the intelligent manner in which that gentleman carried out my instructions, given at the time and supplemented by advice by mail

The above is a faithful report of my and Dr Ranney's connection with the case, and with it before them, I am quite willing to leave it to the readers of the JOURNAL to decide who performed the operation

EDWARD W JENKS

84 Lafayette Ave

NATIONAL BOARD OF HEALTH.

CHICAGO, ILL , Dec 22, 1884

To the Editor —Having noticed in last week's issue of the JOURNAL, the bill presented to the Committee on Public Health on the above subject, and which doubtless will be introduced in Congress by Mr Beach, chairman of this committee, the thought has occurred to me, as doubtless it has to many others who have read the bill, that while it covers the ground very completely indeed for the purpose for which it is intended, a suggestion may not be devoid of interest at this time, to be offered, perhaps, as an amendment to this bill, or to that portion of it which relates *more particularly to the selection of members* which shall constitute the National Board of Health And I trust while doing so I may not be regarded as acting in the capacity of instructor to the honorable representative from New York, nor to those who assisted in framing this bill, but that I shall be accorded space in stating what I believe to be the sentiment of more than 90 per cent of the physicians throughout the United States, as well as the views of all the people The following is the bill as it now reads

" Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled That an act entitled An act to prevent the introduction of contagious and infectious diseases into the United States, and to establish a National Board of Health, approved March 3, 1879, be so amended as to provide that there shall be established a National Board of Health to consist of *one member from each State Board of Health now established, or which may be hereafter established,* etc , etc "

Assuming that the above bill, or a similar, one will be passed by Congress this winter, and the appropriation asked for granted, or that a suitable amount will be appropriated for the object of perpetuating a National Health Authority, does not the bill as it now stands savor just a little of partiality in the selection of members who shall constitute this National Board ? "

To illustrate We will suppose that Illinois has 5,000 well educated, honorable physicians, all of whom are engaged in the practice of medicine and surgery, of whom 1,500 are residents of Chicago and Cook county Are these 5,000 doctors to be ignored in the selection or the appointment of one of its members to the National Board of Health ? Are there no hygienists or sanitarians in this large number, from which a proper and judicious selection of one member for the National Board can be made, instead of confining the selection to one of the seven now constituting the Illinois State Board of Health ?

Are the Territories also to be slighted in this selection ? Of the several Territories, is it not to these newer countries that emigration is attracted and largely destined, and where disease is often generated ? Are there not hundreds of scientific medical men, eminent in the profession, living within territorial boundaries, that should have recognition, and also be eligible to membership in this National Board ? In making the above suggestions, far be it from my thought to decry or undervalue the different State Boards of Health, or any of the members thereof On the contrary, in the State of Illinois a number of its present members, and those who previously belonged to it, have already achieved national renown as sanitarians, as doubtless those of the other State Boards of Health have If I have succeeded in the above remarks in making my subject clear, and the interrogatories herein propounded merit the approval of those who may read them, and if the bill as already stated appears as an unjust one to at least 80,000 practitioners in the United States, for the reasons above stated, then, indeed, it is the duty of those whose attention has been directed to the subject, to promptly notify their respective representatives at Washington of the views herein set forth, or such portions thereof as merit their approval

Other thoughts occur to the writer, pertaining to the National Board of Health, or the establishment of a Health Bureau as a branch of our Government, which I shall not dwell upon at present, as this letter has been already extended to greater length than was originally intended

Very respectfully yours,
LISTON H MONTGOMERY

MURIATE OF COCAINE IN URETHRAL SURGERY.

The wide range of usefulness as an anæsthetic for cocaine seems as yet unlimited

After the many eulogies upon it in its effects to prevent pain in operations upon the eye, ear, nose, teeth, skin, I have one to add—that of its power to completely anæsthetize the mucous membrane of the urethra, permitting the painless introduction of the sound, and of enabling the surgeon to operate by cutting on *strictures* of the urethra by a completely painless method

My first case was a well built and healthy-looking man, 34 years old, unmarried Had gonorrhœa six years previous, treated himself with arg nit injections He stated the cure was complete He came to me on Dec 5, with an acute gonorrhœa Treated him by hot water injections medicated with zinc and hydrastin muriate Found that only a No 6 soft rubber catheter could be passed on account of strictures Continued the treatment until discharges ceased, which did so in a week I then concluded to operate on strictures by Otis's instrument I painted the urethral surface of penis for several minutes and repeated the operation at intervals of five minutes, obtaining at the end of twenty minutes complete anæsthesia of the entire urethral tract The introduction of a sound was painless, as likewise the cutting instrument The strictures were cut, *three* in number, without the slightest twinge of pain There was very little subsequent pain or soreness, and my patient was speedily cured

Case No 2 had suffered from stricture for four years, had a chronic gleet when he presented himself at my office I found stricture in membranous portion of urethra I introduced a soft rubber catheter down to the stricture and injected a four per cent solution of Merck's In ten minutes I forced the instrument past the stricture and incised in two places the fibrous band without pain Very little hæmorrhage, amounting to 4 or 5 drops in all, after which I passed a No 14 sound with little difficulty I feel safe in saying that this new therapeutic agent is still in its infancy of usefulness to the profession

H A EBERLE, M D

823 Main Street, Kansas City, Mo

BOOK REVIEWS.

SIXTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF CONNECTICUT, for the fiscal year ending November 30, 1883 Cloth, 124 pages

The first fifty pages of the volume present the general report This consists of a discussion of the practical benefits of sanitary enactments, a review of the diseases generally regarded as infectious or contagious, followed by a consideration of the various special subjects coming under the department of State Hygiene Among the various papers that make up the body of the work is one on the sanitary drainage of tenement houses This paper is clear and explicit in its style and illustrated by numerous cuts The concluding pages are occupied by the registration report of the Bureau of Vital Statistics

C E W

ATLAS OF FEMALE PELVIC ANATOMY By D BERRY HART, M D, F R C P E, Lecturer School of Medicine, Edinburgh, etc, etc New York D Appleton & Co, 1884 From Jansen, McClurg & Co, Chicago

This is a new and important contribution to anatomical science The author is quite well and favorably known on both sides of the Atlantic, from his former works, "Manual of Gynæcology" (with Dr Barbour) and "Structural Anatomy of Female Pelvic Floor"

The present work is as masterly and complete as seems possible on such a subject Most of the delineations are new and valuable, especially those forming the plates on fœtal developments and the frozen sections

Imperfections in our knowledge of precise regional anatomy, especially in the diseases of women, have been the cause of confusion of ideas and disputed theories, with much fruitless discussion The present work will in future furnish a basis for greater accuracy and precision to all gynæcologists who will avail themselves of it

It is a handsome quarto volume containing about forty colored plates, all drawn from actual dissections with extreme care and fidelity As an instance of thoroughness seldom surpassed, the various frozen sections, with the bladder in all stages of fulness, may be cited The position and form of this organ when emptied and when distended, and the precise influence of its pressure upon other organs is thus shown with almost photographic accuracy This is true of all other points needing elucidation about the female pelvic viscera, *e g*, their positions in pregnancy, in parturition, in the virgin, in the fœtus, in the genu pectoral posture, etc, etc

Instructors cannot fail to find this splendid work a mine of usefulness in their classes

E W A

MEDICAL DIAGNOSIS A Manual of Clinical Methods By J GRAHAM BROWN, M D Second Edition Birmingham & Co, New York

This is an excellent treatise on physical diagnosis It is convenient in size It is written compactly, and is quite full and complete It is more than a treatise on physical diagnosis, although this constitutes the bulk of the volume, since it describes subjective as well as objective signs of disease The book is well worth reading Methods of urinalysis, both chemical and microscopic, are given in the discussion of symptoms and signs of disease connected with the urinary system

CLINICAL LECTURES ON DISEASES OF THE EYE Including the Conjunctiva, Cornea Sclerotic, Iris and Ciliary body By DR FRED RITTER VON ARLT, O O, Professor Augenheilkunde in Wien Translated by DR LYMAN WARE, Surgeon Illinois Charitable Ear Infirmary, Ophthalmic Surgeon Presbyterian Hospital and Protestant Orphan Asylum, Chicago Now in press

MISCELLANEOUS

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, UNITED STATES ARMY, FROM DECEMBER 13, 1884, TO DECEMBER 26, 1884

Lauderdale, Jno V, Captain and Assistant Surgeon, Ft Sully, D T, granted leave of absence for one month, to take effect about Dec 9, 1884

Comegys, E T, Captain and Assistant Surgeon, granted leave of absence for one month (S O 234, Dept Mo, Dec 8, 1884)

Pilcher, J E, First Lieutenant and Assistant Surgeon, ordered to Ft Custer, M T, for duty Order assigning him to duty at Ft A Lincoln, D T, amended (S O 145, Dept Dak, Dec 8, 1884)

Wales, P G, First Lieutenant and Assistant Surgeon Relieved from duty in Department Colorado and ordered to Department Arizona (S O 128, Div Pacif Dec 17, 1884)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING DECEMBER 20, 1884

Kindleberger, D, Medical Inspector Detached from the "Hartford," and placed on sick leave

—THE—

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

VOL IV   CHICAGO, JANUARY 10, 1885   'NO 2

ORIGINAL ARTICLES

ON THE TREATMENT OF DIPHTHERIA

BY J W BROWN, M D , OF CENTRAL NEW YORK

Read in the Section on Diseases of Children of American Medical Association, May, 1884

Omitting the historical review of the nature and origin of this malady, together with its pathological, histological and disputed theories of formation, and practically ignoring symptoms, diagnosis and prognosis as beyond the scope of the present paper and time at my disposal, and assuming that we are all familiar with this affection and that our results have been disappointing when faced by an epidemic, by the unfavorable mortality averaging, as Oertel claims, 40 to 50 per cent the question naturally is suggested, Can we lower this fearful percentage? I present, gentlemen, a few facts gained from a study and experience of over one hundred and twenty (120) recorded cases occurring in my individual practice during a period of about fourteen (14) months Its plan is not new, being advocated by Tropean, and endorsed by Dr Whittaker, of Ohio, at the meeting of this Association in Richmond It promises, I think, more satisfactory results than common, and while recognizing the local nature, it does not advocate the radical caustic treatment of recent date and prominent endorsement During a practice of about ten years the usual sporadic cases were observed and with indifferent treatment the most of them recovered The present epidemic began in August, 1880, and continued with varying severity for about the time stated The causes are obscure, as we are situated in Central New York The surface of the country is rolling and well drained, the area of territory invaded may be estimated as about one half (½) mile by four (4) miles, averaging a descent of one hundred feet to the mile Geological formation is limestone and we have no stagnant water During a residence of nearly nine years no other epidemics were observed General sanitary condition the average of country villages Population about one thousand, manufacturing (mills) and farming the principal occupations Water supply mainly obtained from wells and springs, no sewerage, but the usual country "*back house*" The general type was severe, and no case has been recorded where distinct exudation was not present The catarrhal and croupous forms were readily recognized, many of the latter proving malignant The catarrhal form was readily merged into the croupous, and fauces were generally well covered in twenty-four hours

The invasion was generally sudden—chilliness being first complained of, which, with the pain in back and soreness of throat, soon told the story I regard it as *contagious*, having personally acquired it twice in less than six months from close attention to bad cases The temperature I could not rely upon, severe and even fatal cases having no extreme elevation from normal

The complications were numerous, and convalescence in many instances protracted My mortality was light, considering the severity of the epidemic The following are numbers of fatal cases as they occurred, with analysis of causes of death Nos 1, 6, 17, 19, 36, 66, 68—total, 7 In case I nasal hæmorrhage and asthenia can be assigned as the cause, and was unavoidable and almost assured, as she was not seen until about forty-eight hours before, and with neglect and lack of treatment fell an easy victim In case VI death was due to erosion of arteries in posterior nares, together with general debility This case had been progressing finely, but owing to my acquiring it, as I think, from him, and being confined to my bed, I did not see him Death ensued in about forty-eight hours, although his throat had been perfectly cleared at my last visit In case XVII death was undoubtedly due to the extreme severity An overwhelming attack, with complete systemic infection Membrane formed so rapidly and blocked throat so completely, that scissors had to be used to keep passages open and prevent suffocation Case XIX was convalescent Membrane had been entirely cleared, with no re-formation for forty-eight hours Death very suddenly from paralysis of the heart Case XXXVI was malignant, and died from complete systemic infection and prostration Sloughing of tonsils and nasal hæmorrhage Case LXVI, death was peculiar, and history not satisfactory, but I should judge from asthenia I saw him forty-eight hours previous, and throat was practically clean Had been severely affected, but was convalescent, appetite good, and I considered him out of danger Was prostrated with my second seizure, and I learned that a fatal result terminated the battle two days subsequently Case LXVIII, death in fifty-two hours Malignant, tonsils sloughed, nasal hæmorrhage Whole number of fatal cases, seven (7), from disease alone, three (3), from complications, four (4) There were but three cases in which treatment was without apparent effect, and who succumbed to the disease proper, and yet these measures were successful in relieving the fauces of the remainder, who perished from the complications.

The ages varied from an infant of 4 months to a lady of 60, but was mainly among those under 16 years. I regard it as a constitutional disease, with local affection of the throat as its most characteristic symptom, and consider the chief dangers due to systemic infection, with subsequent poisoning and prostration, and that to the *immediate* mitigation of throat symptoms by *topical* measures, together with urgent stimulation and constant support, must our chief reliance be made. I do not *dare* to sit down and let the throat take care of itself. No *half way* measures succeed. We *must be* thorough, and we must not palliate, or the "golden stair" will be ascended before we are aware, and our fancied security be an illusion. Two attacks with alarming severity is my excuse, so I may be allowed my objections to this delusion that we should cherish, "DON'T DO IT." And now, gentlemen, what shall we do? At my first visit I give 5 grains of calomel every four hours until bowels are thoroughly evacuated. This starts up secretions and eliminates much effete material, and in itself is of great utility. I have salt pork cut thin and rubbed full of table salt and bound over tonsils from ear to ear, fastening at the vertex (stitching through and through the muslin will prevent trouble some slipping). I touch the throat in ordinary cases once daily (although much depends upon activity of membranous formation), and in severe cases twice or more, though not too often, as increased irritation following too frequent applications in my own case was a painful illustration, and rendered me more careful afterward. Absorbent cotton held in a sponge-holder proves a happy medium for making applications, which consist of the following:

℞	Ferri pr. sulph.	ʒi	
	Glycerine and		
	Pure cider vinegar āā	℥ss	M.
S.	Apply.		

This when gently applied (not swabbed) and held for a few seconds in apposition to affected parts has the effect of penetrating the deposit, which shrivels and falls off, and also hardens the engorged tissues beneath. This in many cases does not occur at once, but may require repeated applications. Do not be tempted to make them too often, and above all, use no force in detaching that which is apparently loose, as I can personally condemn its bad effects. Septic absorption is less active from the coagulation and hardening of subjacent structures. Upon no account is force or swabbing to be resorted to, and unless suffocation is imminent or fear of swallowing membrane present, I would not forcibly detach it, as it forms all the more rapidly upon the torn and raw surface beneath, and systemic infection is all the more profound. Gently place cotton in apposition, and gentle pressure will be all that is required. I atomize throat freely, frequently and thoroughly, depending upon the severity of the case, with

℞	Ferri pr. sulph.	gr. x	
	Pure cider vinegar		
	Pure water āā	℥ss	M.
S.	With atomizer.		

In nasal diphtheria, if inhaled at time of atomization, benefit will be more pronounced. Any atomizer will be found convenient that throws a liberal spray, and in epidemics it is indispensable that each patient should procure his own, which must be scalded frequently. Atomizer must be well applied to affected parts and spray thrown well up in posterior nares for a few minutes, when practicable. Always *know* that it is thoroughly done or you will be disappointed in your results. Young children may require force, but the atomization must be made at short intervals, and have nurses fully understand the imperative necessity of complying. Among the worst cases of laryngeal variety I ever saw was a child of seven years, whose recovery is due to persistent and thorough atomization given by his father. Epiglottis was loaded for two days, but we persevered and eventually won the battle. Gargles of brandy and water, chlorate of potassa, salt, pepper and vinegar are useful but must in no way interfere with thorough and regular atomization. As exudate re forms more rapidly during night, greater caution and care are required. As constitutional remedies I give after bowels are freely evacuated

℞	Tr. ferri chlorid.	ʒss	
	Saturated solution potass. chlorate		
	Syrupi simplex āā	℥iv	M.
S.	ʒi every hour.		

Three grains each of potassa chlorate and quinia sulphas every five or six hours is generally beneficial. All should be cautioned against swallowing the membrane, as it produces symptoms resembling arsenical poisoning. When taken in quantities, potassa chlorate in solution in teaspoonful doses occasionally is of value as a neutralizing agent. Know that the nursing is of the best and not *too* frequent changes; *know* that your directions are obeyed as to the minutiæ or often your efforts are in vain. See personally that *enough* nourishment is taken, *nolens volens*. Milk is to be preferred as being more readily assimilated; beef tea, extract, etc., etc., may be used. I advocate stimulants from the first, even in mild cases. There seems to be an enervation of heart even from the first; a diminished "vis-a-tergo," and heroic stimulation may win the day as I personally know, even when convalescent; and I think my results were better and I had less alarming cases of enfeebled heart after my adoption of more thorough stimulation. Good bourbon or rye whiskey or brandy can be used, as may be preferred. The quantity must be regulated by the judgment of attendant and effect produced, the pulse being our guide. I gave over a pint of whiskey in less than eight hours to a boy of seven years, and no ill effects were perceptible as he recovered, thanks to the stimulation. Kidneys must act properly, also bowels at least once every second day.

Isolation *must be enforced*. Fumigate daily with sulphur upon live coals. Disinfect all discharges with cupri sulphas. Take plenty of fresh air, keep out draughts In my family of seven none contracted disease, although two were under three years of age Same results generally when orders were fully obeyed

A history of my own attacks may be of interest and for once I know all about it The first was extremely severe Membrane very thick and re-forming very actively Throat made worse by too frequent applications Prostration extreme, malignant tendency for twelve hours, greatly diminished heart's action and enfeeblement Tendency for heart clot on fifth day Convalescence rapid Loss of twenty pounds The second attack was due to exposure to Case 68 where I was compelled to plug nostrils Throat affected in twelve hours Blood oozed from fauces for twenty-four hours before exudate appeared, which was of the greenish malignant kind Right tonsil partially sloughed Recovery protracted, and I did not feel perfectly well for over a year afterwards Topical measures and *energetic* stimulation were strictly enforced

After convalescence is established, good food, tonics and fresh air are required

Tracheotomy was performed once, but I would not advise it again I have abandoned all treatment for the following, and base my deductions upon results obtained with no selection of cases Let our gospel be one of thoroughness, stimulation, topical applications, tonics and nourishment Look upon the localized deposit and relieve it, and your battle is more that half won Do not be deluded by this lime water treatment, and abandon the use of nitrate of silver Avoid harshness, but use whiskey

DISCUSSSION

Dr S W Smith, of New York, wished to know how the essayist made his diagnosis, as other diseases closely resemble diphtheria such as follicular pharyngitis, and can only be recognized by washing off the membrane

In the dispensary where he was assistant there were 175 cases seen monthly, or about 1,800 cases yearly Met during the two years 25 cases of diphtheria Catarrhal tonsillitis and follicular pharyngitis in many cases resemble diphtheria, but in those diseases the membrane can be removed without hæmorrhage The disease can find a point of departure from other parts of the body besides the tonsils Recalls a case where the first manifestation was on the genitals and passed into the vagina The child died

The statistics of the State of Vermont give a mortality of 50 per cent Dr Billington's (chief of the Dispensary service) treatment consisted in washing out mouth and nose with a solution of salt water and giving internally chlorate of potassium, tincture of the chloride of iron and glycerine

Quinine and alcohol were not given because there did not appear to him to be any indication for their use Lost a case where it was impossible to wash out throat Believes the disease to be constitutional and local in character

Dr A Behrend, Washington, D C , called attention to the fact that the cases here were uniformly fatal when hoarseness commenced

Dr Franklin, Ohio —Why does Dr Smith object to quinine?

Dr Smith —Because fever went down when the throat was well washed out Milk was given freely during the attack

Dr Franklin —Out West it is necessary to give quinine on account of malaria Has found iron and quinine of great benefit Also employs a gargle of salt and vinegar as was first recommended by Trousseau This brings the membrane up in large blocks Has had few deaths since he adopted this line of treatment In rheumatic throat trouble guaiacum has been found good Rheumatism complicates this very often

Dr J Lewis Smith, N Y , does not agree with those who hold that the disease is a local one Local treatment does not cure Must be constitutional because the kidneys are so early affected It is either constitutional at first or becomes so very quickly What must we use if it is a constitutional disease? Micrococci are found everywhere, kidneys, etc Have we any remedy for this disease? Alcohol appears to meet the indication and can be used in large quantities without intoxication This is much better than iron and quinine Has been led to look with distrust on the antiseptics No agent can act on the micrococci without hurting the system They would destoy the normal cells as quickly as the morbid matter The sulphite of soda, phenic acid, etc , do not accomplish as much as alcohol Jacobi and others look with favor on Pepper's treatment with the bichloride of mercury in small doses In syphilis this improves the blood corpuscles In this we may have an important agent Tenesmus may result This is a good agent according to New York physicians Looks with distrust on statistics The disease varies the same as the scarlatina type changes Recalls the case of a physician who had not had one death among fifty cases of the disease and immediately afterwards lost his own child with it The local treatment is important because it destroys the micrococci and prevents septic poisoning, Septic absorption occurs where the membrane invades the cells of the mucous coat Uses in nasal diphtheria

℞	Sodium chlorid	ʒi
	Acidi Boracici	℥ss
	Aquæ	Oi
Or,		
℞	Hydrarg Bichlor	gr ii
	Aquæ	Oi

What is to be done in diphtheritic croup? Tracheotomy? No Dreads to be called to these cases No irritating substances, such as bromine, should be employed on such surface, as they only extend the inflammation Has found the alkalies good in breaking up the fibrinous membrane Alkalies disolve both fibrine and mucin Great benefit is found in watching for the hoarseness and commencing treatment at once, and mothers are instructed to be on their guard about this Use steam atomizer with liq potassium, ʒiii, strong aqua calcis, Oi

Dr Burrows, Ill , agrees with Dr Smith, but employs sulphur for insufflation, as there is danger of the nasal injections producing otitis media It also has some effect on the blood corpuscles

Dr Harris, of Va —Results claimed for treatment are much better than Virginia gives In the epidemic two years ago three-fourths died They were in a state of collapse from the beginning, and never rallied The regular treatment was adopted This is the dark side Then, on the other side, all cases recover without treatment These were typical cases In only a small proportion of the cases is the larynx affected Spasmodic croup can be mistaken for true croup and diphtheria Has seen two cases cured by Pepper's treatment

Dr Miller, Allegheny, Pa —The thirtieth of a grain of bichloride of mercury given every hour softens the membrane when the remedy acts Pay attention to the well Examine every day In his own family pilocarpine had a good effect Also the permanganate of potassium acts well locally

In the County Orphans' Asylum has not used a pint of alcohol during some years, but gives milk in large quantities

Dr S C Busey, D C —There are three forms of the disease The first can only be recognized by the resulting paralysis The second can be recognized and treated The third all die

Mistakes are made frequently, the simple can be converted into the severer form There are more deaths from the disease in country towns and more deaths where the simple (catarrhal) throat troubles prevail It is both local and constitutional, for data from the census reports show that it is not always constitutional In Virginia the cases were dead from the beginning Certain number of local cases can become constitutional Local treatment is very important Dissolve membrane off first, and then apply oleate of mercury Solution of nitric acid, 1–3, or spray 1–5, best to remove membrane No case lost where this was done Support with milk and beef tea The former best Internally give chlorate of potassium, tincture chloride of iron, and alcohol

Dr Ulrich, Pa —Did the doctor make a distinction between diphtheritic and membranous croup?

Dr S W Smith —The latter is distinct from diphtheria, but during an epidemic, diphtheria can have diphtheritic croup engraved on it

Dr Ulrich —We can have both diphtheritic and membranous croup The treatment is different Has not changed treatment in diphtheria since an epidemic seen in Louisiana a number of years ago, 13 cases died at the outset of the epidemic Had good results with large doses of chlorate of potass and tincture of chloride of iron Does not neglect local treatment, but does not rely on it It is difficult to use anything Muriatic acid and honey is a good application Physicians do not use enough of iron in these cases Large doses of calomel have been given, acts same as the bichloride of mercury

Dr Free —Is not chlorate of potassium injurious in large doses? Has seen several deaths from it, due to kidney complication It is considered good treatment in his county to save 80 per cent Uses stimulants at once in large doses Tincture of the chloride of iron is used, but omits quinine No reason for it except that it disturbs the stomach and has slight antiseptic effect No deaths from diphtheritic laryngitis in his county Milk and beef tea (home made and Johnson's) employed Always uses constitutional and local treatment Meets with paralysis in all cases In answer to question said that he used half to two ounces of rye whiskey every two hours

Dr Hicks, of Virginia, said cases of diphtheritic laryngitis were all fatal About two cases usually occurred in an epidemic Treatment depends on theory Diphtheria cannot arise from catarrhal diseases, but the latter can predispose to it Like only begets like Why do physicians prescribe chloride of potassium and the tincture of chloride of iron? As antiseptics? Sepsis does not occur until late in the disease Chlorate of potassium is very bad for the kidneys The disease can be divided into three types

1st Mild cases All get well We do not know how the disease does when left to itself Formerly, pneumonia (an inflammatory disease), when actively treated, gave a mortality of 30 per cent Now, when left to itself, there is only a mortality of 5 per cent

In the second class certain ones can be cured with food and tonics Germicides are to be used

In the third class all die Severe treatment does no good

Mild solution of chloral good Quinine also good for fever The disease cannot be studied in country practice, because there active treatment must be resorted to or else the patients employ some other physician

Dr Holton is a firm believer in the contagiousness of the disease Gave several examples to illustrate this How is the poison of the disease carried? It can be conveyed after recovery, and without the person conveying it having had it Formerly thought it to be a constitutional, but now believes it to be a local disease Germs accumulate and fructify on the mucous surfaces Believes in local treatment This depends on form In 113 cases there were 13 deaths Two deaths in cases not treated Nine of the other eleven were treated by Homœopaths Where there was no treatment death resulted

Uses chlorine as recommended by Watson, but stronger Believes in whiskey but not in quinine The latter acts upon the blood corpuscles, and these are not affected in diphtheria Can be of service later on in the disease by its effects on the lymphatic system Stimulants are necessary

Dr Hicks, of Vermont, believes that it is contagious, and gave examples Circumstances modify its contagiousness

Dr Park, Dauphin Co, Pa — There are many cases of diphtheria where no communication has taken place Death is rare, except from diphtheritic laryngitis A gargle of tannic acid, carbolic acid and glycerine is in general use Does not believe in contagiousness

Dr Wm Lee, Md —Success depends on the diagnosis Nothing is so difficult as to diagnose diphtheria from catarrhal angina Never call a case diphtheria, unless both tonsils are affected or patch extends behind uvula, or pharyngeal folds Both tonsils are very soon affected. In diphtheritic coryza the secretion microscopically shows all the elements of diphtheria. Employs resorcin locally and constitutionally, instead of alcohol. Does not believe in mopping the throat. Has seen children die in the arms while being mopped. Treats all cases as contagious.

Dr. Ulrich, Pa.—The pharyngitis can be the first stage of diphtheria. We cannot make a distinction at first. It cannot culminate in diphtheria. The latter is constitutional, the former not.

Dr. Busey.—Cannot diphtheria be engrafted on pharyngitis?

Dr. Ulrich.—Yes. The latter can be the starting point. The system is contaminated with the diphtheritic poison.

Dr. S. W. Smith.—The distinctive sign is that the deposit in pharyngitis can be washed away, which cannot be done in diphtheria. Does not believe the disease to be contagious. There is no danger of ear trouble in washing out nose.

Dr. Brown.—The paper was to show the good effects of the sub sulphate of iron in diphtheria. Regards hoarseness as a valuable sign of diphtheritic laryngitis. Has found vinegar a good solvent of the membrane. Temperature curves are valueless. It is a constitutional disease, and tracheotomy has been fatal in all cases where it was performed. But the patients had an easier death. Has had no experience with the bichloride of mercury.

ON ASSURING HEALTHY DENTINE OVER ENDANGERED PULPS.

BY JACOB L. WILLIAMS, M. D., BOSTON, MASS.

Read in the Section on Oral and Dental Surgery of American Medical Association, May, 1884.

In saying endangered pulps I mean cases where the pulps have but little of the natural covering of dentine in the depths of cavities, which covering is very apt to be more or less tainted by disease, that is by the agents that have produced caries.

Let us look at the conditions here existing. There is acid with fermentive action, often in full sway, seeming at first sight to demand the most decided and effective neutralizing and corrective applications. But, just beyond lie some of the most highly and delicately organized tissues of the whole body, fibres, that if rudely set vibrating will be likely to continue or repeat their vibrations in a very serious way, tissue, which if inflamed, there is none more doubtful of survival, and we must remember that the life of the pulp means additional years of usefulness to its organ.

These circumstances I fear are often too little considered in the use of violent or caustic applications.

But what should be done? Perhaps my ideas on this point may be best given by mentioning a plan of treatment for such cases that I formed, tested, and adopted during the years 1847 and 1848, and which in its general principles I have found to be most satisfactory up to the present time. Of course, since that date new materials have been added to our list of available correctives for diseased conditions.

After first removing the loosest débris, I applied a mild antacid such as aqua calcis or a solution of bicarbonate of soda, after thorough saturation with which, I treated the cavity for the correction of fermentive elements by the application of a solution of chloride of calcium, also very dilute creosote (we now have several substitutes for that). The cavity was then dried and sealed up for from two to three weeks, when it was opened and the *mild* saturation repeated, adding perhaps a mild astringent, such as tannic acid in weak solution, to the latter application. Then it was sealed up again, generally for a longer period, and the dressing was repeated at proper intervals until permanent health of dentine was assured.

Now with these mild correctives we have a greater chance of avoiding undue irritation of the pulp than with stronger applications; but they will be more or less transient in their effect, and therefore will require frequent repetition, which may be less frequent as the dentine gains in soundness and health.

By this method we help nature in the line of her preference, that is to protect rather than injure a vital point, keeping the disease in check to give her opportunity.

It may be, and has sometimes been said, that this treatment is very troublesome, and, why not make one strong application, and trust that nature will do the rest? I reply that the great objection is that while a strong or caustic dressing is not always lasting in corrective influence, it adds vastly to the possibilities, if it does not make sure, that the reparative action of the pulp will be interfered with, resulting in failure of the ultimate object of secondary deposit. Instances of this sort are often seen in practice; and in my observation the proportion of success of the mild repetition plan is far beyond that of the single capping practice.

Of course there will be some chance of non-success in many attempts to save the pulp, depending often on constitutional as well as local causes, and both may be obscure. The best and most promising efforts may be thwarted by neglect of the patient to report at proper times, or by interruption of the general health. Or, again, when cases are nearly ready for a permanent operation, they may be piratically appropriated by some person who very probably will speak lightly of the treatment that has brought the teeth into condition for his profitable seizure. But still our highest duty is to save life rather than to destroy or endanger it.

Representative cases might be related from a large number with various phases, but to describe them minutely would task both your time and patience.

Plaster of Paris was first used as a cap for the exposed portion. Oxide of tin was also mixed with the gutta-percha.

One rather extreme case I might mention, occurring in 1854.

A young man aged 25, upper left first molar having a large and deep cavity on the mesial side, with the pulp covered only very thinly by softened and disintegrated remains of dentine

But the pulp was apparently uninjured, and on inquiry I found there had been no pain, and nothing to indicate the existence of inflammation in any degree, which was an encouragement to give the pulp every chance to live and protect itself by secondary dentine

I saturated the cavity first with aqua calcis about half strength, then with solution of chloride calcium, but this causing slight sensation I reapplied the aqua calcis with the effect of stopping pain

I then applied a *mild* non-irritating antiseptic in proportion about as follows, viz a wood creosote (at that time the best known antiseptic of its kind), one drop to one drachm of alcohol, adding two drachms of water, after which I dried the cavity and covered the depth over the pulp with a mixture of oxide of zinc, five parts to one of gutta percha mixed with its bulk of yellow wax, over which I placed carefully, without pressure, and filling up the cavity with the gutta purcha and oxide of zinc mixture, melting the wax After two months I unsealed the cavity, repeated the antiseptic with the addition of a trace of tannic acid, this at first caused sensation which was readily dispelled by aqua calcis I then dried and sealed up the cavity, at the end of four months repeating the above treatment, twice again after six months, and finally after about eight months, making more than two years in all, when there was a firm, hard almost transparent floor of new dentine, from which the former disintegrated material was readily brushed off by a light touch of an instrument After placing an inert non-conducting material (a piece of fine white silk saturated with wax) at the depth of the cavity, I filled with gold Two years afterwards a small cavity occurred on the distal side of the same tooth, which on preparing to fill I found as sensitive to the instrument as if it had been the first cavity the tooth ever had, proving the unimpaired vitality of the organ, which continued several years after and during the life of the patient

DISCUSSION

Dr W W Allport, Chicago, Ill —Was certainly very much interested in the paper, and the line of treatment mapped out by the author It has been the usual practice to apply antiseptics in these cases, creosote, carbolic and eucalyptus, etc , in various strengths and then to immediately cap with some non-conducting material like gutta percha, oxychloride or oxyphosphate of zinc

The first important point to be gained is to neutralize or destroy the agents of decay, and then to protect the pulp from irritation of every variety

This can best be done by using a non-conducting material directly over the pulp and then to fill the balance of the cavity with a substance sufficiently hard and firm to prevent irritation from mechanical pressure, but do not see why the treatment need be continued over so long a period as that practiced by Dr Williams

Dr J L Williams —The object in continuing the treatment over so many months is to be sure that the active causes of decay are destroyed or rendered inert, and to guard against pulp irritation by frequent dressing with mild remedies, rather that to run the risk incident to the application of such intense medicaments as are commonly used

Dr Allport —I have heard something recently about a new remedy for the treatment of this class of diseases made from the oil of cloves, and known as eugenol It has been very highly recommended as having a decided fatal influence over germ life

Have had no experience with it myself, but would like to hear a report upon the subject from those gentlemen who have experimented with it

Dr A W Harlan, Chicago, Ill —Dr Williams spoke of his treatment being to antagonize the acid or acid ferment Such treatment could be only of temporary benefit, the remedies must be of sufficient strength to destroy the agents of fermentation Most practitioners are in the habit of swabbing the cavity of decay with creosote, carbolic acid and other like remedies, and after temporarily sealing it up for a few days, capping with gutta percha solution, oxychloride of zinc, metal caps with various forms of dressing placed upon the under surface and permanently filling the cavity of decay But in such cases we have no means of knowing whether there has really been any deposit of secondary dentine, and I believe in a vast majority of them no secondary deposit occurs

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FRAGMENTARY COMMENTS ON SOME OF THE PRINCIPAL METHODS OF OPERATION FOR "STONE IN THE BLADDER"

With Special Reference to Allarton's Method, Also in Combination with Lithotripsy, Urethro-Lithotripsy, Urethrotomia Lithotriptica, Including Besides Critical Remarks Upon the Discussion of the Progress Made, in Lithotripsy and "Lithotomy" at the Late International Medical Congress held in London, England, and divers other subjects comprising the Urinary Organs

BY M SCHUPPERT, M D , OF NEW ORLEANS, LA

[CONTINUED]

The high recommendation of litholopaxy was no doubt also influenced by "avoiding the bloody knife," though we have seen that even Sir H Thompson recommended a combination of the two methods, "lithotripsy and lithotomy," neutralizing thereby the highly praised distinction and benefit attained by the exclusive adoption of litholopaxy

How different all of this becomes in selecting the operative methods of Allarton, in the inestimable boon of which method the risk of the so much feared "bloody knife" is reduced to a mere myth, in which the bladder is secured to remain even more intact than in Bigelow's litholopaxy, and with which it shares all the benefits if combined with lithotripsy! Well may we say that by the nearer and better access to the calculus, by its total removal, either entire or in combination with lithotripsy, of even the largest calculi with the more complete, surer and quicker withdrawal of its fragments, and displacement of that element, which renders also Bigelow's operation still dangerous, *the urine*, the pærineal median urethrotomy of Allarton stands to day inferior to none of all the diverse methods of cystotomy, litholopaxy not even excluded That mentioned danger from the urine, including the feared recidives of phosphatic concrements—of both more at a later time—have also induced even admirers of Bigelow's method to declare "that after all, nothing was won by it" The crushing of big and hard stones, if necessary, by the introduction of the respective instruments through the pærineal wound, instead of carrying them through the whole urethra, will also permit to build the instruments much more solid and powerful, so that they will not act at the beak only, which is still a defect in Bigelow's percuteur The knife finally causing merely an incision through the urethra, will equally be deprived of its "bloody" and "dangerous" character Of all the partakers in the discussion of the main subject under consideration in the International Medical Congress, there was not one voice heard in opposition to the dictum of the presiding officer regarding the operation of "lithotomy" It was as if the enthusiasm for the American operation had swamped all other questions I am, indeed, far from objecting against a well founded enthusiasm, and less so in view of the merits of our own Bigelow, but the assertion that "we had nothing to show in the progress of the knife in that field," was an injustice toward those surgeons who had proven by their success that there was at least one, if not another, method well worthy of a special consideration and support

The only preparatory manipulation Allarton's method has in common with Bigelow's operation consists in the dilatation of the urethra, but with the exception that in urethrotomy strictures, which would render the introduction of lithotriptic instruments impossible, would here seldom interfere The urethra, or that part of it from the opened membranous portion to the neck of the bladder, will permit a far greater extension, and without causing the least laceration, than *Otis'* measurements would seem to warrant In my last operation after Allarton's method, I removed a calculus of near half an ounce weight, the circumference of which, including the branches of the fine polished forceps, measured 82 mm , and the extraction of the calculus was performed without the use of any extraordinary force, and without laceration of the parts Among the main objections against this median cut stands the statement that no further dilatation of the prostatic portion of the urethra beyond 50 or 60 mm was possible, and that any further efforts of dilatation would produce laceration (*Ellis, Teevan*) That statement I may conscientiously contradict, since in my operation not a drop of blood followed the extraction of the stone, which in case of a laceration might certainly have been expected Not even the finger, introduced into the urethra, presented a trace of blood That in case of a previously diseased urethra, or of the prostate, in strictures, or by a rough handling, such lacerations might happen, I will not deny, yet we know from the experiments of Simon to what an extent and in what short time, by a careful and gradual dilatation, the lumen of the female urethra may be enlarged without committing any harm to that organ The male urethra will certainly not much differ in that respect from the female one

The operation of Allarton, we are informed, originated from a method known under the appellations "*Methodus cum apparatu magno*," which was invented in the year 1520 by a surgeon of Cremona, Italy, *John de Romani*, who communicated it to one *Mariano Santo di Berletta*, since which time it became known under his name *Mariano's operation* It became obsolete, but was revived, though greatly modified, by Allarton, and like Bigelow's method of lithotripsy, became a totally different operation from that of Mariano's While the latter operated *on the left side of the raphe*, not sparing the neck of the bladder, and making use of a multitude of superfluous and odd instruments, which gave the method the name, "*cum apparatu magno*," Allarton operated exactly *in the raphe*, opening only the membranous portion of the urethra with the knife, and dilating the balance of the channel with the finger The instruments were but a few, mainly a sound, scalpel and and forceps While there existed many objections against Mariano's method, in consequence of which it was most properly relinquished, the method of Allarton, which is still often and very improperly mingled with Mariano's, by its virtues deserves well the ascendency assigned to it Its reintroduction into Germany belongs foremost to that illustrious surgeon R Volkmann, of Halle, Prussia, one of whose last statements, in reference to that operation was "that during the year he operated in the average on eight cases of calculus," and that "*there had to be most extraordinary circumstances, if he should select another method than Allarton's*" In order to give a thorough discription of Allarton's methods, I have selected here a typical case

Pærineal median Urethrotomy Allarton's —The subject of this operation was G Cook, 22 years of age, a native of this city and of German extraction He measured 5 feet 4 inches in height, weighed 117 pounds, with a skin of fair complexion and light brown hair He had been, according to the statement of his mother, a sickly child and was once reduced to a mere skeleton His mother had given up hope ever to raise him When 4 years old his urine became "bloody" with "sandy deposits," which condition lasted with few intermissions nearly two years The boy often suffered a great deal of pain All of these symptoms disappeared when 6 years old From that time, against all expectation, the boy grew strong and healthy With the beginning of the year 1878, when 20 years old, the symptoms characteristic of the presence of stone in the bladder set in According to his own statement he was examined by several physicians, yet all but one had failed to make the correct diagnosis of his ailment I first saw and examined him in 1880, discovering a calculus of about the size of a ripe walnut I proposed to him the operation, to which he gave his assent

From the history just given it was more than probable that the calculus was originally renal and having arrived in the bladder became fastened in a diverticle, where it remained growing till the attained weight caused its displacement Out of its confinement, it became from that time, a troublesome lodger

Previous to the appointed time for the operation I took proper care that the urine presented a distinct acid reaction He drank some alkaline waters, citrate and tartrate of potassium, for several weeks On the day of operation the presence of the calculus was once more established by the stone sound and bimanual exploration, in inserting the longest finger of the left hand in the previously cleaned rectum, while the right hand pressed against the abdomen The diagnosis having been again corroborated and the size of the calculus once more explored, I met with no prohibitory cause for performing Allarton's method, as originally intended It may be as well to state here, that previous to deciding upon this operation the urethra ought to be well examined if no obstacles exist to prevent a proper and sufficient dilatation of that channel, which if existing, have of course, first to be removed before the operation can be undertaken

On the morning of the 30th of October, after the patient's bowels had been moved by a cathartic on the day previous, and again one hour before the operation by enemas, he was narcotized with chloroform by Dr Schmidthe When fully under its influence the patient was placed on a table in the known position for cystotomy With the lower extremities bent at the kneejoints, the hands kept tied to the feet and his *posteriora* brought close to the edge of the operating table, projecting rather a little beyond it, I took the surgeon's perilous position between his legs I say "perilous" in having learned from former operations of that kind, that no reliance is to be placed in any security against involuntary discharges of the bowels, though they may have been thoroughly cleansed previously —Such *involuntarii alvi secessus* I have also observed to happen, notwithstanding the same precaution in splitting fistulae in ano —The precaution I had taken against such an accident proved to be a wise one The pærineum after being shaved, was cleaned with alcohol vini, followed by washing the parts with phenol water of 3 per cent The instruments had also been cleaned and were kept in phenol water of 5 per cent like the new sponges which I here used exceptionally My son William took a position to the right of the patient, holding the itinerarium, which I had introduced, steady in its place with his left hand, while with the right he kept the scrotum elevated against the symphysis pubis Whilst the itinerarium was held exactly in the raphe of the pærineum I made the incision The point of the scalpel was inserted in the raphe at the beginning of the pars bulbosa urethræ, cutting downwards in the raphe and ending about 12 mm (½") distant from the anal aperture Having divided the cutis and the superficial fascia, the groove in the staff could be distinctly felt In cutting down upon it the membranous portion of the urethra was laid open A portion of the hæmorrhoidal veinal plexus was hereby cut, but the bleeding was trifling, and this was in fact the only blood lost in the operation Not that I place any weight upon the loss of blood in operations, if not in excess The present mania of saving every drop of blood in operations, I consider just as manifestly an error, as in former times blood letting was in a Sangrado fashion The proceeding with the operation was therefore not even interfered with momentarily The cut in the urethra measured nearly three ctm in length The prostate, which I had explored previous to the beginning of the operation, was not touched by the knife, and the knife was abandoned for the balance of the operation after the urethra had been laid open In beginning to dilate the urethra towards the bladder, I made first use of a dressing forceps to initiate the dilatation before using the finger Volkmann at this part of the operation recommends to remove the staff and replace it by a probe I tried it, but soon found that the finger rather lost its direction, instead of being supported by the slender probe I therefore reintroduced the staff The single difficulty here met with consists in first entering the finger into the urethra, but introducing the dressing forceps closed, led by the grooved staff, and opening the branches of the forceps in different directions, that difficulty will soon be overcome and sufficient room be gained for entering the point of the index finger Once thus started I soon succeeded by a rotatory motion of the finger to enter the bladder Another support of accomplishing that maneuvre consists in placing one hand on the abdomen of the patient above the symphysis pubis, causing a moderate pressure towards the rotating index finger of the other hand in the urethra, whereby less difficulty is experienced, nor is the bladder pushed out of the way On the contrary, the bladder is thus, so to say, stripped over the encountering finger like a glove After the finger had once entered the bladder, the staff was removed for good The dilatation of the urethra was gradually accomplished, when the well polished branches of the stone forceps were easily carried into the bladder

The calculus was known to be of an uneven, rough surface, presenting many protuberances Of these I fritted away a good many to decrease the diameter of the calculus in extracting it I might as well have made use of the percuteur and crushed the stone, but I felt confident to extract it entire, without causing any laceration After some ineffectual attempts in grasping the stone at its smallest diameter, I finally succeeded The stone was extracted without any injury to the prostate, or laceration in the least of the urethra

The calculus belonged to the so called mulberry variety Its two diameters measured 26 and 33 mm The circumference of the branches of the forceps holding the calculus in its smallest diameter measured 88 mm (3½"), while the circumference of the stone, at its smallest part, presented 75 mm , and 89 mm at its largest Its weight was not quite half an ounce These measurements may prove the degree of extension the urethra can suffer if slowly and carefully dilated It is considerably greater than Otis has given as the normal circumference (as we will see hereafter)

After the removal of the calculus, the bladder was repeatedly well washed out with 3 per cent phenol water, and the wound kept covered by carbolized sponges, fastened by a T bandage The sponges were daily exchanged, boiled and kept in 5 per cent phenolwater till used

After the bandage had been removed from hands and feet, patient was carried to bed and ⅙ grain of muriate of morphia given subcutaneously He was still under the influence of the chloroform, of which about 4 ounces had been consumed [1] At the evening visit I found patient perfectly serene, not having suffered any pain, nor even the common nausea from the chloroform

On the next morning visit the wound looked well, no hardness or swelling, to any extent, was perceptible, nor had any bleeding happened Though a good deal of micturition had set in, little urine passed through the wound that day The urine was limpid, pulse 130, temperature 101° F , which condition lasted during the first three days, excepting the pulse, which diminished 10 beats on the second day There was no fever at any time, and I assigned that phenomenal rise more to the action of the chloroform than to the operation or any of its consequences On the third day pulse and temperature had become normal After the second day the urine came away from the wound still in drops, which lasted during several days, when it ceased abruptly On the morning of the fifth day I found the temperature increased to 103° F , and on examination became convinced that the aseptic treatment had become defective by the nurse's fault The sponge at the wound was dry This was immediately attended to, and on the seventh day, at the morning visit, the temperature was again normal, and remained so till the wound had totally healed During all this time the patient had been in the best of humor From the fifth day after the operation, most of the urine was discharged through its natural passage, and from the eighth day, all of it Only when the bladder became overfilled did a few drops of urine pass through the narrowed opening At the end of the second week the wound was filled up by granulations, and cicatrization began The patient left his bed, and with the end of the third week the wound had totally healed

I have been led to believe that an operation causing so little reaction, being free from any danger, in fact presenting so favorable results, ought to recommend itself to the proper regard and patronage of the surgical profession I have no doubt of the pærineal median urethrotomy making friends wherever it will be once tried, and the eminent surgeon of Halle deserves praise for his zeal in having assisted so powerfully in the reintroduction of a method which, for so long and unjustly, had been consigned to the lumber-room [1]

How singular, then, must it not appear to see Erichsen confound the two operations, that of Allarton with the obsolete method, Mariano's two operations which have nothing in common but the general field for operating—the pærineum, beyond this every element, every part of the operation differs While Allarton, as already mentioned, selected the raphe, Mariano operated outside of it Allarton opens only the pars membranacea of the urethra with the knife, dilating the balance up to the bladder in a gentle manner by the rotating finger, leaving thereby uninjured the vas deferens and the calliculum seminale Here an operation which needs but a few instruments, while Mariano, on the other hand, operated with a most complicated instrumentarium purposely constructed for it, forcing open the wound *vi et armis*, tearing and lacerating the prostate and neck of the bladder, and injuring thereby the seminal vesicles, an operation suspected of causing sterility and followed by a high mortality, an issue totally unknown in Allarton's method True, when Allarton about twenty years ago introduced his new median section, it recalled to mind Mariano's old obsolete operation of 300 or 400 years past, but that such could induce an Erichsen to remark that "Allarton's method was a reintroduction of Sanctus Mariano's operation" and that it afforded him an illustration of "the mutability of professional practice," which made it appear that there was "a cycle of opinions of fashion in surgery, as in politics and philosophy," is more than I am able to decipher If such material differences of two methods, as we have seen here, entitle an author to call one "the modified modern," the other "the old method," then one might as well count the Cæsarian section amongst the modern and fashionable forms of delivery

Erichsen, in his latest edition of '*Science and Art of Surgery*,'' has proposed a modification of Allarton's method, but I doubt if he will thereby give more satisfaction and greater security, or render the procedure described above easier of execution In his exchanging the curved staff for a rectangular one, with its lower end 2½ ctm long, with which length the incision has to correspond, cutting upwards, with one finger in the rectum, to secure the latter against being wounded, I really see nothing to admire as an improvement, but rather what the Germans call "eine eselsbrucke"—an ass bridge. Besides in employing a finger at intervals in the rectum is not well compatible and in harmony with the idol of a perfect asepsis and a scrupulous cleanliness. And again, from fear of wounding the rectum to give the advice to cut away from it in an opposite direction, would but prove the utter unfitness of a surgeon who would commit such a blunder. Such a person had better select another occupation, exposing himself less to become wrecked in reputation.

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[1] It has become a principle with me, based upon an extensive experience, to prefer chloroform to ether and never begin an operation before a deep narcosis has been obtained I rather sacrifice some ounces of chloroform of which I apply always the purest and dearest (made from hydrate of chloral raw) than risk the life of my patient by depriving him of a sufficient quantity of air inhaled with the chloroform vapors The habit of using minimal quantities of chloroform measured by drops under a total or near a total exclusion of the atmospheric air which produces *asphyxia* instead of *anæsthesia*, is a practice which cannot be condemned too severely I have administered chloroform over two thousand times and used more than two hundred pints of that liquid and never met with an accident produced by the chloroform *which I had not been able to remedy by my method, in reversing the whole body of the patient* as soon as threatening symptoms happened, in a cessation of respiration and circulation setting in Such happened five times during my thirty four years of practice and in no instance did the method fail me The only author who has mentioned my method properly and experienced its efficiency was the late Prof C Hueter, in his Grundriss der Chirurgie Allg Theil page 470

[1] That a method apparently so free from all danger may nevertheless, end fatally I witnessed this year Though the operation itself had been performed in a bungling manner it was the neglect of a properly applied asepsis which caused pyæmia and death

The enlarged incision of the cutis and subcutaneous cellular tissue in the raphe beyond the necessary length, I prefer on account of enabling the surgeon afterwards to dilate the urethra easier and more extensively. Pushing out of the way the bladder whilst dilating the urethra with the rotating finger, which, singular to say, has given Erichsen cause for complaining, and in which he sees even a point of accusation against the method, is too trifling an obstacle for a practical operator and what, as I have shown, may be obviated in the most simple manner by pressing with the non-operating hand against the abdomen, by which the neck of the bladder will, so to say, be pushed over the rotating finger of the other hand, assisting thereby the surgeon considerably in accomplishing his object. It must indeed be a well fortified method against which no more serious and graver objections than such trifles can be brought, to demolish it or bring it into discredit.

It is astonishing how easy and by taking time, to what an extent the urethra can be dilated after a beginning has once been effected. We meet with the same capacity in the female urethra, the uterus and the rectum, into which latter, with care, the whole hand and even part of the arm may gradually be introduced without producing a laceration, or, subsequently, a paralysis. The important condition of the urine, its innocence, if of an acid reaction, and the noxious influence on the other hand, if of an alkaline nature (which we will hear of later) and which ought always to be taken in consideration before deciding on a traumatic operation comprising the urinary tract, seems also to have been ignored by Erichsen. How much ignorance or oversight in that respect has had to do in judging the comparative value of one or the other method, who can tell?

The perineal median urethrotomy, then, compares no doubt favorably with all the other methods of operation for stone in the bladder. The apparently small room the urethra offers for manipulating and extracting stones may to the inexperienced be an apriori justifiable objection against the method, and the surgeon who has never experienced to what a degree that channel can be dilated, will hardly believe that most of the stones removable by the lateral section, without crushing, can also be extracted by the pærineal median urethrotomy. Its disadvantages, if there are any, compared with the advantages are of a minimal character. The small wound, the trifling loss of blood, security in the knife's direction without any danger of wounding neighboring organs, and the short time necessary for a final recovery of those operated upon are almost unknown as an ensemble in any other method. How much advanced and improved, however, the operation of lithotripsy may have become of late, in complications with those fearful conditions cystitis and pyelonephritis, Allarton's method with its effective after treatment will occupy the front rank in the operation for stone. In few surgical operations has the human ingenium so well succeeded in obtaining its object and in delivering the human race from one of the most loathsome diseases to an extent almost beyond further improvement. In the face of this assertion then, vindicated by incontrovertible fact, it must appear strange to come across so singular and retrograde a proposition as the median operation has experienced in Berlin, Prussia. Instead of operating in the raphe as in Allarton's, the old obsolete Mariano's method, selecting the left triangular space near the raphe, has again been chosen. The only reason those surgeons have advanced for this poor innovation consists, that in case of too large a calculus, in order to win further room for the stone's extraction the lateral section might be added. That this modification has all the disadvantages and dangers of the properly relinquished method of Mariano, need not be further demonstrated. Why in such a case of too large a calculus a resort is not taken to the percuteur, or, even an extension of the incision towards the neck of the bladder in the direction of the raphe, is more than I am able to comprehend. The innovation is, to say the least, little creditable to its author.

To neutralize the bad impression the Berlin proposition must have caused, I will place here a practicable hint relating to the initial steps of Allarton's method, introduced by the late Dr. Wilms, of Berlin. He brought a kind of forceps, with two smooth branches, into the urethral orifice, and when arrived at the *pars nuda urethræ*, the instrument is partially opened, and between its two branches the incision perfected, dividing the parts to be cut all at once, and with perfect security. The ever-practical Wilms recommended the instrument highly.

After this exhaustive description and analysis of Allarton's urethrotomy in favor of the uninitiated, it is left to me to speak of its combination with lithotripsy, to which I have applied the name

Urethro lithotripsy—Urethotomia lithotriptica.—In returning here once more to the operation of lithotripsy, such has been caused by reflecting on some historical points concerning that operation, by Dr. Ed. Keyes, of the Bellevue Hospital, in New York. That author, in a studiously collected history of the operation of lithotripsy, tells us that attention to that operation had first been incited by the success of Civiale in France in 1824, and whom Keyes calls "the Fulton of lithotripsy." The successive sittings of crushing the stone did not last longer, as stated, than three minutes, after several days' rest. In a pamphlet written by Civiale in 1847, he claimed, of sixty-nine cases operated upon by himself, to have suffered only three deaths. But we have learned what to think of Civiale's statistics, which become the more suspicious here when we are made acquainted with the length of time the fragments were left in the bladder, considering, moreover, the inadequate and deficient instruments used at that time, not to speak of the unknown action of the urine in complicated cases, nor of the known insalubrity of the Parisian hospitals Next to Civiale, the French had two more distinguished lithotriptists at that early time—Leroy d'Etiolles (1846) and Heurteloup The first asserted to have operated over 100 cases with success Rapid operating, with immediate extraction of the detritus, had already, at that early time, become the *beau ideal* of that method The bickerings amongst the surgeons at that period were so great "that it may be considered a wonder," says Keyes, "that lithotripsy ever succeeded in becoming established as a justifiable surgical procedure " That state of affairs gives us also a hint what to think of the published statistics at that period It was Heurteloup who introduced the method into England (London) And in London he also published some of his writings (1831) Heurteloup, singular to say, stated it to be unnecessary to remove all the detritus, and that after the removal of the coarser particles, what was left would dissolve in the urine (!) Indeed, a strange idea, which Keyes properly characterizes as "an arrant heresy to damn lithotripsy at its birth " But when Keyes further adds "It being clear that rapid lithotripsy, as performed by Amussat, Leroy d'Etiolles, and others, had been an unsurgical procedure, which could not stand the test of experience in the hands of the general surgeon," he evidently unwillingly committed another and not a smaller heresy, notwithstanding that rapid lithotripsy disappeared to a great extent, and "even Heurteloup had given it up at the end of his career " I am at least at a loss to conceive why men like an Amussat or Leroy d'Etiolles should have insisted upon the early removal of the fragments, if they had not had an adequate reason for it, nor can I comprehend upon what motive Keyes condemns that procedure, since, under an entire absence of all antiseptics at that time, the total and rapid removal of all the detritus could only have vouchsafed a successful result And most so would it have been afforded in complicated cases, as with cystitis, even when the pain caused by the fragments should not have called for it To no other action, at least, could I attribute the good results, provided such had in verity been obtained

That even at the present time a wrong conception exists among the majority of surgeons about the real injurious influence of the fragments of stone, may be proved by the neglect of insisting upon its early removal and a thorough and repeated washing out of the bladder with antiseptic liquids which will be demonstrated in the following

Keyes' paper informs us further "that in London at the time of Heurteloup's arrival scattered accounts of rude operations of lithotripsy had existed, but that it finally had gained the sturdy advocacy of H Thompson, who had become its apostle and recognized authority " "That Thompson had declared it the *exclusive* operative procedure in *small stones* That the best English surgeons at that time had been in favor of lithotomy, reserving for lithotripsy only such stones which might have been removed in a few sittings, and when the bladder could have been promptly freed from the detritus " "Matters had stood about at the same level in this country Lithotripsy had had but few serious supporters But a new departure had taken place since Bigelow's litholopaxy had gained favor here as well as in England under Thompson's leadership, and which had forced lithotomy into a position of minor importance "

"Entire fragmentation of the stone," says Keyes, "with immediate and total removal of the débris by aspiration through a tube passed by the whole of the urethra is the proper definition of *litholopaxy* But that Bigelow disregarded the length of the time employed in the operation so long as the patient's general condition was as good as he desired "

"There is nothing new under the sun " the rabbi Ben Akiba once remarked To detract from Bigelow's reputation, so that he should not pride himself of his well-earned triumph unimpaired and uncurtailed, Keyes tells us, an Englishman had been brought upon the boards, claiming for himself the priority of the principles advocated by Bigelow Stokes, of Dublin, in December, 1879, stated before the Surgical Society of Ireland, that Bigelow's operation had already been performed in the Meath Hospital, in 1845, by Sir Philip Crampton Stokes, in presenting even the original instrument, claimed that the principle of its action was the same as Bigelow's Keyes well remarks here "that it ought not to be forgotten that Sir Crampton's instrument had been used for an atonic bladder and not for a healthy one, besides there had been already surgeons like Carney, Mercier and others who even before Crampton had used similar instruments Mercier's instrument had even the same rubber bulb and a similar glass receiver as Bigelow's, but all these were used for other purposes than Bigelow's

After this short historical and interesting sketch, I turn again to the combined operations of urethrotomy and lithotripsy The operation may also be called an infringement, since the urethrotomy is Allarton's and lithotripsy its inventor's But while both methods separately are mainly recommended for comparative small stones, I, on the contrary, claim its application exclusively for the largest and hardest calculi, whilst for the small and middle sized ones Allarton's method ought to be the favored one almost exclusively

After the exhaustive description of Allarton's operation—yes, what has been said of both operations—there is no need of further explanation The name represents that sufficiently Nevertheless, as will be observed, there are some particular points still to be argued here which may not be bare of all interest The advantages of the combination of both operations are obvious The crushing instruments, the lithotriptor or percuteur, can be built in a far more solid manner than when it has to pass the whole urethral channel, in consequence of which much larger and harder stones could be crushed than such as would be obtainable with the lighter constructed instruments, even Bigelow's not excepted Next to the crushing of the stone, the removal of the detritus can also be accomplished more completely and in a much shorter space of time, since those fragments need not be brought into so fine a dust as necessary to enter the eyes of the catheter In the removal of the detritus, a common small glass or metal tube and a syringe will answer for Bigelow's sound with aspirator The complete evacuation of the bladder from the débris of the crushed stone in the smallest compass of time, is evidently preferable to short crushings at longer intervals, as in Bigelow's method, where from 5 to 16 grains of the débris for every minute in an acid urine, and 2½ grains in an alkaline urine, and in the presence of phosphatic stones, from 40 to 70 grains only might be washed out (Of this method more will be said hereafter)

Further, the repeated entering and dragging out of the instruments through the whole sensitive urethra will be avoided Strictures of the urethra, so great an impediment in lithotripsy, do hardly come in question here The same is the case with prostatic troubles, which in a great part are easily removable

The instruments which render Bigelow's method so expensive become totally superfluous A much stronger built, simple lithotriptor, with a common syringe or irrigator, a scalpel and dressing forceps, are, as already stated, nearly all the instruments necessary in performing the operation And what will not finally be the benefit derived from it in a case complicated with cystitis?

In an alkaline or decomposed, putrid, purulent urine, the preparatory treatment previous to the operation ought to consist during a few days in a milk diet, rest in bed, and drinking freely of some Lithia or Bethesda water (about three or four pints daily), and some alkaline diuretics, as citrate or tartrate of potassa Repeated irrigations of the bladder of a 2½ to 3 per cent phenol water, or of a solution of borate of potassa with salicylic acid, as warm as tolerated, are besides to be applied daily Should there be a great difficulty in getting rid of the bad urine, an injection of a concentrated solution of nitrate of silver will often accomplish the desired object With regard to the after treatment, I have only to call attention to the careful searching, that no fragments are left behind Repeated irrigations of 3 per cent phenol water during day and night every fifteen minutes, may under circumstances save a life which already had been given up for lost

No instruments ought to be used if not previously well cleansed and made aseptic by placing them for half an hour in a 5 per cent phenol water, and to be greased afterwards with phenol oil (one part phenol to two parts of oil, or glycerine) Immediately after each operation, the bladder must be well irrigated with the 3 per cent phenol water

Dangerous Character of the Detritus —On several occasions I have called attention to the ill judged and absurd opinions of the action of the fragments of the crushed stone In order to present exhaustively the whole importance of that detritus and its proper understanding, inclusive treatment, I have selected here a typical case for demonstration Though I could have selected a similar case out of my own experience, I have preferred to take one from the collection of my friend, the late Professor of Surgery, of Greifswald, Prussia, Dr C Hueter We will observe the injurious process, or function, of the fragments explained in quite a different manner than usually considered where a great stress is laid upon the mechanical action of the sharp edges of the detritus

It is by the mistakes, the errors committed, that we learn how to avoid them in future, and one such case, in which we have blundered, is often more instructive and of import than a hundred others of a successful issue

The case under consideration was an inmate of the University Hospital of Greifswald, and Hueter lost his patient on the fourth day after the introduction of the lithotriptor Hueter had at first caught the calculus more in order to measure its size at that time, than intending to crush it But having caught it, as he thought, in a very favorable position for crushing, he thought to try at least the stone's hardness Experienced and expert an operator as Hueter was, by that statement he points to one of the difficulties of that operation, since not every one is a Sir Thompson, who performs the whole operation in six or seven minutes! Having satisfied himself that the calculus was not a fit one for further lithotriptic efforts he therefore concluded to perform cystotomy in a day or two later But being recalled a few hours afterwards, Hueter met the man suffering from a severe chill followed by a high fever, and a few days later the patient died under the symptoms of pneumonia The post mortem examination revealed instead of one, five oval calculi, of from 2–3 ctm in the shorter and 3–4 ctm in the larger diameter They were of a whitish color and very hard consisting of urates to the greater part, and were lying close together as eggs in a bird's nest At the fundus of the bladder was a hæmorrhagic inflammatory spot of the mucous membrane with diphtheritic streaks, covering the upper part of the folds of the mucous membrane The membrane lining also the ureters and kidneys was equally very hyperæmic Signs of a fresh pneumonia were besides visible Of the calculus, which had been caught by the instrument, a mere indentation was to be observed, and only a few small particles from the external surface of the calculus had come away Not the least injury on the mucous membrane could be detected Hueter thought that, few as the lost particles from the cortical substance of the calculus ever were, they might have been the cause of trouble, they were at least sufficient to account for the observed successive phenomena Hueter's hypothesis was "that in the formation of the calculus some *irritaments* (micro-organisms) causing inflammation, had become imbedded, which being set free by the lithotriptic effort and coming in contact with the mucous membrane, had caused a cystitis, aggravated by a diphtheritic form " This of course is but an hypothesis, yet if we admit that a catarrh may be caused by a decomposition of the urine, then also no objection can be raised against the including of some of the products of this decomposed urine into the lamellated structure of the calculus This hypothesis of the validity almost of a theory, seems to be even more reasonable than the admittance of an injurious action of such fragments, as we have here to deal with of so diminutive a character as scarcely to cause a mechanical action, notwithstanding that such is generally admitted to be the case with the detritus. That groups of micrococci, included during the formation of a calculus, may when set free, act on the mucous membrane and cause inflammation, such seems to me, as it ought to every surgeon, a more reasonable supposition than the common one of admitting mechanical injuries produced by such small fragments as were here present. The case in question besides permits scarcely of any other interpretation than the one given here, and if correct, which can hardly be doubted, it will require as an important element, an aseptic, or antiseptic treatment in every lithotriptic operation.

If such micrococci should be propagated in a high degree, a diphtheritic inflammation of the mucous membrane might be produced, which could even be transferred to the mucous tract of the urethra and the kidneys.

The pneumonia, in Hueter's case, was of course the expressed manifestation of the general diphtheritic infection of the organism. I repeat then, if in the absence of all sharp fragments, as in this case, such few trifling particles could have produced such tremendous effects, then we will have to declare our incompetence, since such small particles will almost always be retained in every such operation, though they may and fortunately do not each time cause an inflammation of such an intense character. What we may therefore learn from that important case, consists in a total change of the character of action of the fragments and in the necessity of an immediate and thorough antiseptic irrigation of the bladder after each lithotriptic act.

That in the case alluded to, in which I had for the first time introduced a lithotriptor through the whole of the urethral tract, and more for experimentation's sake to try the hardness of the calculus, that I met with a more favorable issue, I had to thank for the information I had received from Hueter's case. An immediate recourse to antiseptic phenol injections into the bladder every half hour, during one day and night, till the high fever subsided, saved my patient's life.

Hueter thought, "that he should have performed lithotomy" in his case and as early as possible, the presence of the violent cystitis to the contrary, notwithstanding.

I fully concur with this celebrated surgeon's views, with the exception, that instead of the lateral section, I would, in having performed urethro-lithotripsy, rather extend the incision in the raphe towards and into the neck of the bladder if necessary.

"The knife in such a case," says Hueter, "acts as an antipyretic, as in the incision of a septic phlegmon, or, in the resection of a putrefying joint. With an incision into the bladder not only the extraction of the calculi would have followed forthwith, and with them the removal of the cause of the diphtheritic process of the bladder, but also the removal of the inflammation itself by the antiseptic irrigation. Yet at that time the justification of performing 'lithotomy' in a patient with acute high fever and beginning pneumonia, did not exist, and many surgeons would shrink from performing it under such circumstances, even at the present day, justifiable, if not indicated as life-saving, as the operation may ever be."

It happened to Hueter's patient, what so frequently happened during the late Franco-German war, with shot wounds comprising the joints. In waiting, according to the old school, the antique customary rules for the abatement of the high fever, before undertaking the operation, it happened that the patient usually died in consequence of waiting, and the time for the operation, as a matter of course, never arrived. That during the stormy suppurative inflammation of the wounded joint an early operation, the resection of the joint, for instance, would have been indicated as life-saving. Such the old fogies neither contemplated nor comprehended. Hueter in such cases operated; he resected and saved the life of his patients, whilst the lives in the hands of the opportunists were wantonly sacrificed by the hundreds.

Here, then, is progress—progress in cystotomy on an extended urethrotomy, Mr. Erichsen's negation to the contrary, notwithstanding!

Lithotripsy no doubt has suffered during a long period from different mishaps, but even Bigelow misconstrued, in part, if not in the main, the real source of those failures, at least theoretically. If he had recognized the real character of the obnoxious fragments, it is more than doubtful that he ever would have fallen upon the construction of his costly apparatus for the sole object of the speedy removal of the detritus. Not less so is the crafty Sir H. Thompson, England's most distinguished stone cutter, caught on marshy bottom, if he still claims for lithotripsy the attribute "*the future operation for stone in the bladder*."

The rule, during the presence of a heavy catarrh of the bladder, not to undertake lithotripsy or cystotomy, on account of the danger associated with it, is therefore a maxim for serious consideration.

The oxalate and uric calculi present in a bladder, though free from a catarrhal affection, are, on account of hardness, difficult, if not impossible, to be crushed with the ordinary instruments. They will permit the operation of urethro-lithotripsy, by permitting stronger built instruments. Calculi composed of triple-phosphates, though easily crushed, are almost exclusively present in a catarrhal diseased bladder. Thus would the simple operation of lithotripsy have been narrowed down to but a few cases, if Bigelow had not, by his apparatus and the speedy and total removal of the detritus, again enlarged the lithotriptic field. But even without his costly and complicated instruments, in the presence even of a cystitis or a decomposed alkaline urine, there would not any longer exist contra indications for either crushing or cutting operations, under a thorough, methodical antiseptic irrigation of the bladder at and after each session, wherewith all and every irritation of the bladder, and danger, would cease.

With all due reverence, then, for the inventive ingenium of our gifted and skillful confreré for the construction of an apparatus so long a desideratum in the operation of lithotripsy, still, with the proper and correct recognition of the true character and nature of the mischievous consequences of the rudiments of the crushed calculus, we might nevertheless do without his apparatus and be content with most of the old instruments Such, to a certain extent, must most assuredly be a consolation to many a colleague in straightened circumstances, unable to suffer the expenses for Bigelow's litholopactic operation

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[1] With facility

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS.

THE USE OF COCAINE IN THROAT AFFECTIONS.—As an additional proof of the wonderful effects of this drug which is exciting so much attention in this country, we give a brief of the paper read by Dr. Jelinek before the Society of Physicians of Vienna, and taken from the *Wiener Medicinische Wochenschrift* by the *Medical Times*.

Dr. Jelinek first briefly reviews the various methods hitherto employed to diminish the sensibility of the pharynx and larynx, viz., the painting with sulphate of morphia, the ether spray, tannin, bromide of potassium. The use of sulphate of morphia was very commonly used. The pharynx and larynx were painted twelve times with chloroform, and after the lapse of an hour an equal number of times with a concentrated solution of morphia. This was done in the evening preceding the day of operation. The next morning the sensibility of the larynx was found so diminished that operation could be performed without distress. The disadvantages of this method were obvious. The preparation lasted twelve hours, and the patient had to be watched during the whole night, as there was a possibility of narcotism. Hydrochlorate of cocaine seemed to have been long known to French physicians, but its practical employment as an anæsthetic and anodyne had hitherto been unknown. He used dilute alcoholic solutions of ten per cent. and twenty per cent., which were at first clear, but which after some days became turbid, owing to the alcohol evaporating, and some of the cocaine being precipitated. It then became necessary to add a few drops of alcohol. Hydrochloric acid should not be used in preparing the solution, and it should not be filtered. In slight operations, where little reflex action and only moderate pain were present, the ten per cent. solution sufficed, but where the larynx had to be rendered anæsthetic for more serious operations, the twenty per cent. solution must be employed. To the pharynx the solution should be applied by means of a little mop, to the larynx by means of a thick, soft camel's hair pencil. The application must be repeated every minute and a half, if necessary. The anæsthesia lasted ordinarily from ten to fifteen minutes, and disappeared totally after twenty minutes. All those parts with which an instrument might come into contact—the margin, the lingual and laryngeal surface of the epiglottis, the palleculæ, and so on, must be painted, as reflexes might occur whenever a part had remained untouched by the solution. He then mentioned some cases in which polypi and papillomata had been removed from the larynx with considerable success. As an anodyne in cases of tuberculous perichondritis, in which delutition was so painful that the patients refused food, and were in danger of perishing from inanition, it rendered good service, the diminution of pain sometimes lasted for three hours, it was necessary to seek out all the implicated spots, and to paint them thoroughly. In these cases only aqueous solutions had been used. He further pointed out that cocaine diminished the swelling of a mucous membrane where present, lessened its secretions, and, according to Fannel, tightened the vocal cords. No local or general disturbance had been observed after its employment.

In the course of his remarks Dr. Jelinek gave one striking case somewhat in detail of a man, 45 years of age, suffering from tubercle with extensive swelling and strong infiltration of the epiglottis, but only moderate dullness and slight crepitation were discoverable at the apex of the right lung. He affirmed that for close upon two months he had only been able to swallow milk in the minutest quantities. He was extremely wasted, incapable of work, scarcely even able to walk, and tortured by continuous pain and thirst. Before applying the cocaine solution Dr. Jelinek made him drink some water. He had hardly swallowed a few drops before he started up in the greatest pain, while the water returned through his mouth and nose. Dr. Jelinek then carefully painted the lingual and part of the laryngeal surface of the epiglottis, and the palleculæ, with a ten per cent. solution of cocaine, and a minute afterwards told the patient to drink again. The man anxiously took a small mouthful, for a moment looked around in astonishment, and then, to the surprise of all, greedily swallowed the whole glassful at a single draught. On reaching home he made an excellent meal (the first he had for two months), but soon after the pain re-appeared, and three hours later was as bad as ever.

Professor V. Schrotter stated that he had succeeded in preparing patients by this method, of preparation in from three to eight days, so that they became quite indifferent to endolarnygeal manipulations.

TANNATE INJECTIONS IN CHOLERA.—Professor Cantani, of Naples, has obtained excellent results by the early treatment of cholera with enemata of warm solutions of tannic acid. (*Centralblatt fur die Medicinischen Wissenschaften. Med. Times.*) He used the solution in strength of 5 to 10 grammes of the acid to 2 m. of boiling water, with a little mucilage and laudanum. To insure success he generally made the injection as high up in the bowel as possible, but found that even with an ordinary syringe the treatment was valuable in the early stages of the disease. It was especially effective during the period of premonitory diarrhœa, which was at times completely checked even after a single injection, a period of rest following of from eight to ten hours, and further attacks being cut short in a similar way. The tannate injections seemed to prevent the excessive loss of fluid by the bowel, to permit the continuance of the flow of urine and so to stave off the typhoid state and altogether to prevent the onset of the algid period The exact mode of action of the tannic acid must remain as yet undetermined Amongst other possibilities, Professor Cantani suggests that it has a directly destructive or abortive influence upon the comma bacilli In furtherance of this view he made direct experiments upon artificially cultivated bacilli and found that, although not destroyed by the acid, the micro-organisms were checked in their reproduction and in their mobility for a period of from twenty-four to thirty six hours

Treatment of Marsh Fever by Subcutaneous Injections of Carbolic Acid —Dr Dieulafoy communicated to the *Societe Medicale des Hopitaux de Paris* (*Lancet*), the history of a patient who since 1877 had had tertian fever three times, which had always been successfully treated by the administration of quinine The fever having returned last June, the patient came under the care of Dr Dieulafoy, who on the first day injected subcutaneously two centigrammes and a half of carbolic acid, dissolved in a hundred parts of water The quantity was increased on the following day to five centigrammes, and to seven centigrammes on the days of apyrexia Recovery was complete at the end of seventeen days The patient had then absorbed eighty-four centigrammes of carbolic acid, without showing any signs of poisoning

In the subsequent discussion Dr Laveran reverted to the fact that carbolic acid injections had been employed against marsh fever so far back as 1869, with questionable success He doubted the propriety of attempting to supplant so certain a remedy as sulphate of quinine Dr Huchard related the case of an Arab, in whom quotidian attacks of fever, which had resisted all other remedies, yielded to bromide of potassium

SURGERY.

Skin Grafts from the Frog —Dr Wm Allen (*Lancet*) finds that bits of skin from a decapitated frog make grafts which admirably answer all purposes, forming a source of supply always at hand in the country, except during the winter months, being easily applied on account of their uniformity in thickness, and necessitating no pain to suffering humanity The skin of a single frog yields grafts for an enormous extent of surface and preserves its vitality so long that, if the patient is at a distance, the portion of skin required can be carried by the surgeon in his pocket for an hour or more without injury, provided it is wrapped up in gutta percha, or other water proof tissue, to prevent drying As witnessed in three cases the frog grafts at first act as human grafts are known to do, but later on their behavior is different Thus, soon after being applied they disappear, but after a short time they appear again as a thin transparent film on the surface of the granulations, some of the films being raised in the centre and depressed at the edges, forming small conical elevations At this period the skin at the edge of the wound takes on a very rapid growth, but, curiously enough, the grafts themselves grow but little, and some stop growing altogether, this being so different from what occurs in the case of human skin grafts If the wound or ulcer is a large one, the rapidity of epidermal growth at the circumference also soon diminishes, unless stimulated afresh by a second application of grafts, so that often a series of settings of grafts is needed before the granulations are closed over with skin Material for graft-making, however, being so easily procurable, the large quantity of seedlings required offers no difficulty

Dr Allen applies to this process the views of Stricker regarding the existence of sexes in the tissues The colonies of epithelial corpuscles at the edges of the ulcer remain quiescent through lack of one sexual element, which the grafts no sooner supply than reproduction rapidly sets in, fertilization being probably brought about through the medium of the fluid which bathes the surface of the granulations If the sexual theory accounts for the process, the skin that grows after the application of the frog grafts must be of the nature of a new breed, a cross between human and frog epidermal elements The disproportionate growth between the frog grafts themselves and the circumferential epithelium in no way invalidates this supposition, seeing that a somewhat analogous condition exists among animals when families of the same species are crossed with one another, fertility being greatest on the side that tends to degeneration, and less on the side that aims at a higher development

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MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS.

THE USE OF COCAINE IN THROAT AFFECTIONS.—As an additional proof of the wonderful effects of this drug which is exciting so much attention in this country, we give a brief of the paper read by Dr. Jelinek before the Society of Physicians of Vienna, and taken from the *Wiener Medicinische Wochenschrift* by the *Medical Times*.

Dr. Jelinek first briefly reviews the various methods hitherto employed to diminish the sensibility of the pharynx and larynx, viz., the painting with sulphate of morphia, the ether spray, tannin, bromide of potassium. The use of sulphate of morphia was very commonly used. The pharynx and larynx were painted twelve times with chloroform, and after the lapse of an hour an equal number of times with a concentrated solution of morphia. This was done in the evening preceding the day of operation. The next morning the sensibility of the larynx was found so diminished that operation could be performed without distress. The disadvantages of this method were obvious. The preparation lasted twelve hours, and the patient had to be watched during the whole night, as there was a possibility of narcotism. Hydrochlorate of cocaine seemed to have been long known to French physicians, but its practical employment as an anæsthetic and anodyne had hitherto been unknown. He used dilute alcoholic solutions of ten per cent. and twenty per cent., which were at first clear, but which after some days became turbid, owing to the alcohol evaporating, and some of the cocaine being precipitated. It then became necessary to add a few drops of alcohol. Hydrochloric acid should not be used in preparing the solution, and it should not be filtered. In slight operations, where little reflex action and only moderate pain were present, the ten per cent. solution sufficed, but where the larynx had to be rendered anæsthetic for more serious operations, the twenty per cent. solution must be employed. To the pharynx the solution should be applied by means of a little mop, to the larynx by means of a thick, soft camel's hair pencil. The application must be repeated every minute and a half, if necessary. The anæsthesia lasted ordinarily from ten to fifteen minutes, and disappeared totally after twenty minutes. All those parts with which an instrument might come into contact—the margin, the lingual and laryngeal surface of the epiglottis, the palleculæ, and so on, must be painted, as reflexes might occur whenever a part had remained untouched by the solution. He then mentioned some cases in which polvpi and papillomata had been removed from the larynx with considerable success. As an anodvne in cases of tuberculous perichondritis, in which delutition was so painful that the patients refused food, and were in danger of perishing from inanition, it rendered good service; the diminution of pain sometimes lasted for three hours; it was necessary to seek out all the implicated spots, and to paint them thoroughly. In these cases only aqueous solutions had been used. He further pointed out that cocaine diminished the swelling of a mucous membrane where present, lessened its secretions, and, according to Fannel, tightened the vocal cords. No local or general disturbance had been observed after its employment.

In the course of his remarks Dr. Jelinek gave one striking case somewhat in detail of a man, 45 years of age, suffering from tubercle with extensive swelling and strong infiltration of the epiglottis, but only moderate dullness and slight crepitation were discoverable at the apex of the right lung. He affirmed that for close upon two months he had only been able to swallow milk in the minutest quantities. He was extremely wasted, incapable of work, scarcely even able to walk, and tortured by continuous pain and thirst. Before applying the cocaine solution Dr. Jelinek made him drink some water. He had hardly swallowed a few drops before he started up in the greatest pain, while the water returned through his mouth and nose. Dr. Jelinek then carefully painted the lingual and part of the laryngeal surface of the epiglottis, and the palleculæ, with a ten per cent. solution of cocaine, and a minute afterwards told the patient to drink again. The man anxiously took a small mouthful, for a moment looked around in astonishment, and then, to the surprise of all, greedily swallowed the whole glassful at a single draught. On reaching home he made an excellent meal (the first he had for two months), but soon after the pain re-appeared, and three hours later was as bad as ever.

Professor V. Schrotter stated that he had succeeded in preparing patients by this method, of preparation in from three to eight days, so that they became quite indifferent to endolarnygeal manipulations.

TANNATE INJECTIONS IN CHOLERA.—Professor Cantani, of Naples, has obtained excellent results by the early treatment of cholera with enemata of warm solutions of tannic acid. (*Centralblatt fur die Medicinischen Wissenschaften. Med. Times.*) He used the solution in strength of 5 to 10 grammes of the acid to 2 m. of boiling water, with a little mucilage and laudanum. To insure success he generally made the injection as high up in the bowel as possible, but found that even with an ordinary syringe the treatment was valuable in the early stages of the disease. It was especially effective during the period of premonitory diarrhœa, which was at times completely checked even after a single injection, a period of rest following of from eight to ten hours, and further attacks being cut short in a similar way. The tannate injections seemed to prevent the excessive loss of fluid by the bowel, to permit the continuance of the flow of urine and so to stave off the typhoid state and altogether to prevent the onset of the algid period The exact mode of action of the tannic acid must remain as yet undetermined Amongst other possibilities, Professor Cantani suggests that it has a directly destructive or abortive influence upon the comma bacilli In furtherance of this view he made direct experiments upon artificially cultivated bacilli and found that, although not destroyed by the acid, the micro-organisms were checked in their reproduction and in their mobility for a period of from twenty-four to thirty-six hours

Treatment of Marsh Fever by Subcutaneous Injections of Carbolic Acid —Dr Dieulafoy communicated to the *Societe Medicale des Hopitaux de Paris* (*Lancet*), the history of a patient who since 1877 had had tertian fever three times, which had always been successfully treated by the administration of quinine The fever having returned last June, the patient came under the care of Dr Dieulafoy, who on the first day injected subcutaneously two centigrammes and a half of carbolic acid, dissolved in a hundred parts of water The quantity was increased on the following day to five centigrammes, and to seven centigrammes on the days of apyrexia Recovery was complete at the end of seventeen days The patient had then absorbed eighty-four centigrammes of carbolic acid, without showing any signs of poisoning

In the subsequent discussion Dr Laveran reverted to the fact that carbolic acid injections had been employed against marsh fever so far back as 1869, with questionable success He doubted the propriety of attempting to supplant so certain a remedy as sulphate of quinine Dr Huchard related the case of an Arab, in whom quotidian attacks of fever, which had resisted all other remedies, yielded to bromide of potassium

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SURGERY.

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Note by the Compiler M Demarquay in 1845 published in the *Archives Générales de Méd* a case of this character where several small calculi were passed one the size of a bean on being sawn through was found to have a cherry stone for its nucleus He could only collect 14 cases to compare with his own, several of which contained cherry stones as nuclei, and in some no nucleus was found Among the symptoms, severe hemicrania was common In one case the corresponding eye became seriously affected and in another the tumor appeared to be connected with the roots of a cavious front tooth, as pulling on it caused movements of the tumor In ' A Collection of Remarkable Cases in Surgery, by Paul F Eve page 125 will be found a translation of Demarquay s article taken from the *Edinburgh Medical and Surgical Journal*, 1845

MEDICINE.

The Relation of Certain Diseases of the Eye to Gout —Mr Jonathan Hutchinson delivered the Bowman Lecture before the Ophthalmological Society of the United Kingdom, taking this subject for his text The lecture in full and a resumé of its principal points are given in the *Medical Times*

As his lecture was the first delivered, he devoted some space to insisting upon the existence of a clear distinction between gout and rheumatism, while admitting the difficulty, and even in some cases the impossibility, of actually drawing this distinction in practice By *gout* he means all states of health which are, whether directly or remotely, connected with the accumulation of lithate of soda in the blood, as the result of over-feeding or defective assimilation From the primitive idea of *rheumatism* he would exclude as causes all that have reference to food or assimilation, and would count only those which regard climate and weather, and especially exposure to cold and damp Now, the primitive type of each of these diseases becomes much modified by inheritance, *e g* , a form of transmitted gout may exist, not associated in the patient with either lithiasis or lithæmia Again, the primitive type of the one disease may be associated with an inherited form of the same disease or of the other, while an inherited form of both may co exist in the same individual The intricacy of the investigation is, therefore, manifest, and becomes almost hopelessly so when we are told that strictly rheumatic disorders, even to rheumatism itself, if it happens in the relatives of those who have had gout, lends support to the theory of family tendency to gout It is an observation confirmed by daily experience that the children of the gouty are more liable than others to attacks of rheumatic fever He gives to each hereditary diathesis the definition of arthritic susceptibility to food in the case of gout, and arthritic susceptibility to weather in the case of rheumatism There is a liability to the modification of tissues in the subject of acquired gout, and a proneness of these tissues to suffer in a peculiar manner when exposed to the ordinary exciting causes of disease The offspring of such a person inherits his tissues, and his tendencies as regards digestion, etc , and therefore has an increased proclivity to typical gout if exposed to its usual causes But, besides this, he inherits, independently of exciting causes, a liability to forms of inflammation or of degraded nutrition, which are not unequivocal gout, but which are yet the direct consequence of it in predecessors

"Hot eye" Mr Hutchinson associates with quiet or suppressed gout This affection is characterized by repeated short attacks of conjunctival congestion, and a feeling of heat and pricking in the eyeballs, and is liable to occur after taking injudicious diet In connection with this affection there also occasionally occurs sharp shooting pain in the eyeballs in persons suffering from unequivocal gout He next calls attention to a form of asthenopia, occurring in young persons, in association with inherited gout Nearly all cases of arthritic iritis are really due to gout, either alone or in association with rheumatism It is decidedly exceptional for rheumatism, pure and uncomplicated, to show any tendency to attack the tissues of the eye In considering the different types of arthritic iritis, he takes, first, the ordinary recurrent form, frequently called rheumatic iritis, which occurs in acute transitory paroxysms of well-known type A considerable number of such cases occur in the subjects of true gout, but in a much larger number of cases the concomitant symptoms are those of rheumatic arthritis and not of true gout This form of rheumatic gout is, in reality, a hybrid disease, possessing, in addition to an unquestionable share of rheumatism, an admixture also of gout tendency This view is supported by its infrequency in women, and by the age, habit of body and mode of life of those usually its subjects While iritis in association with acute or chronic rheumatism is very rare, it often accompanies the rheumatic affections induced by gonorrhœa, which occurs usually in the subjects of inherited gout He describes a true gouty iritis with cases in which is a peculiar form of destructive iritis always associated with the inheritance of a gouty constitution In favor of *relapsing cyclitis* being of a gouty origin, facts are still wanting "It is very probable that, in some cases, the constitutional cause may be gout " Little evidence can be produced in argument to show that gout does produce neuritis, but that gouty sciatica may be produced by an inflammation of the nerve or its sheath is at least plausible, and if so, it is also possible that some forms of optic neuritis may really be due to gouty inflammation. Mr Hutchinson considers that *retinitis hæmorrhagica* is very rarely seen excepting in those who are themselves gouty

He divides the different gouty eye affections into two groups, according as they are associated, with (1) acquired, or (2) inherited gout In the former group the attacks are generally acute, transitory and painful, and the patients are adults, here he places hot eye, sclerotitis, recurrent iritis and retinitis hæmorrhagica In the second group the attacks are prone to be chronic and persistent, often insidious, and usually destructive, here we find the true gouty iritis, relapsing cyclitis, and certain forms of soft cataract Indications as to treatment are afforded by the nature of the gout in the two groups

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer s full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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Per Annum, in Advance	$5 00
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Address

Journal of The American Medical Association,
No 65 Randolph Street,
Chicago Illinois

SATURDAY, JANUARY 10, 1885

Atheroma of the Coronary Arteries —The term atheroma as applied to chronic deforming endarteritis is objectionable, since it does not fully express the condition Virchow thinks it should be limited to a fatty degeneration of the middle coat English writers largely employ the term to cover the whole process, whether the change be fatty or calcarious It is likewise so firmly implanted in the vocabulary of American medicine, that to attempt to uproot it seems hopeless, hence we conform to usage, while at the same protesting against the term Although having been observed, as a matter of great rarity, in youth and even in young children, atheroma is essentially a senile change German pathologists express themselves rather guardedly as to its etiology, aside from age and strain, while English writers, notably Bramwell, in his recent admirable work on *diseases of the heart and aorta*, look upon syphilis, gout, rheumatism, chronic alcoholism and strain as important factors in its causation Fothergill (*The Heart and its Diseases* Second edition, page 436) says "The general high blood-pressure in the arteries in the cardio-vascular changes described in the preceding chapter, is the great cause of atheromatous change in the arteries " However this may be, atheromatous change of the arteries is probably more prevalent than most practitioners realize It is said to affect most frequently the aorta and its larger branches, the arteries of the head, the coronary arteries, the splenic, and those of the extremities As a result of atheroma, the smaller vessels become inelastic and not infrequently impervious to the passage of the blood, and the consideration of this fact will enable one to appreciate how serious may be the consequences in the case of the general and coronary arteries

The anatomical character of this disease, as manifested in the nutrient arteries of the heart, and the serious changes in the cardiac muscle which result therefrom, have been forcibly described by Prof. Leyden, of Berlin, in Zeitschr f Klin Med vii , s 459-539 Such is the importance of the subject, that we give the following abstract

"The results of experimental occlusion of the coronary arteries have not been uniform, sometimes the slowing and weakening of the heart's contractions are gradual, blood pressure falls, *pari passu*, in the systematic arteries, and death occurs slowly, at other times, the cessation of the heart's action follows promptly, having been preceded by an exceedingly short interval of feeble, arythmic contractions In man the effect on the heart varies, according to the degree of the sclerosis of the coronary arteries Leyden therefore distinguishes four classes of the disease 1 That in which, although the coronary arteries are sclerotic, their function is not essentially impaired, and the nutrition of the heart is not affected, 2 There is an acute thrombic softening, or hæmorrhagic infarctus, of the heart-muscle, called by Ziegler "*myomalacia cordis*," and corresponding to *encephalo myomalacia*, the affected portions break down or undergo fatty degeneration, and thus prepare the way for an ultimate *ruptura cordis*, 3 Here are found disseminated patches of fibrous induration (*myocarditis fibrosa*), which occur chiefly in the vicinity of the apex, and, by thinning the walls of the ventricle, may occasion *aneurisma cordis*, 4 Spots of fibrous induration exist in conjunction with circumscribed areas of softened tissue, as a result of thrombi Here, evidently, the atheromatous change in the coronary arteries has not advanced steadily, but with periods of exacerbation and subsidance

According to the clinical history, one may distinguish three classes of cases 1st The course of the disease is acute, and results in sudden death After certain prodromata, such as vague anginous symptoms, dyspnœa dizziness, etc , the patient faints, is seized with a sudden, intense angina pectoris, and presenting signs of cardiac failure, such as *œdema pulmonum*, expires The autopsy reveals, aside from a possible rupture of the heart, areas of fibrous induration and recent hemorrhagic softening 2d The course of the disease in this class of cases is subacute, and is witnessed most often in men about sixty years of age. Symptoms of cardiac disturbance which may have obtained, at length increase in severity; attacks of angina become more frequent and intense, cough and dropsy augment, and finally, after weeks or months of cardiac asthma and angina, which latter, if it remits at intervals, does so only to make way for a sensation of nameless anxiety, the sufferer succumbs. The dilated heart is found to be the seat of fibrous degeneration and thinning. 3d. The progress of the disease is chronic, and is associated with advanced age. This class of cases Leyden also divides into three groups: *A*. Characterized by sudden attacks of angina; *B*. the existence of a serious cardiac lesion is revealed by shortness of breath, feeble pulse, inability to exertion, etc., which may exist for five, ten, or fifteen years, but physical signs other than a weak, irregular action of the heart are wanting; the compensation is evidently good. *C*. The compensation has been destroyed; orthopnœa and œdema are developed, and the heart fails in an attack of more than usually acute angina, or death approaches slowly, ushered in by signs and symptoms of venous congestion. The post-mortem appearances are essentially the same as already described.

Finally, Leyden is of the opinion that angina pectoris most frequently accompanies lesion of the heart-muscle, due to atheroma of the coronary arteries.

SCIENTIFIC ITEMS OBTAINABLE FROM THE CREMATORIES.—General acquiescence in the process of cremation seems to be steadily growing among the people, if we may judge from the establishment of crematories. Some time ago an announcement was made from the Le Moyne Crematory that it would for the future be reserved for the service of the county in which it is built. We learn from the *Medical Record* that one is in process of erection in New York, one in New Orleans, one has been talked of in Chicago, and the *British Medical Journal* informs us that in the city of Edinburgh one has just been opened, whilst one is already in operation at Woking, one of the general burying places of London.

We trust that some of our scientifically disposed men may seize the opportunity thus afforded of so arranging the process of cremation that it may yield valuable facts to the science of medicine. The estimation of the amount of "ash" obtainable from the human body, or from any animal organism, as far as we are aware, has never been ascertained on a large scale, but by a judicious arrangement at the foundation of any crematory an extensive series of observations could be instituted which could not, under any other circumstances, be made. There will necessarily be kept, at the office of every such building, a record of age, name, sex, cause of death, etc., of every body cremated, and it would only be necessary to add the question of weight, the general condition of the body, and a few other items, to furnish a record of great interest in a scientific point of view. In order to do this satisfactorily, however, it will be necessary to institute, from the commencement, the practice of cremating the body in a shroud of definite quality, so that the ash resulting from the garments may interfere as little as possible with the definite amount of ash coming from the body itself. To this observance, by a very slight manœuvre, the public could readily be educated. The ash from the body alone would be to them more sacred than the same mixed with the residue from the garments.

Whilst the crematories could furnish facts relative to the ash resulting from the body as a whole, we are satisfied that the pathologist would do well to turn his attention to the incineration of definite weights of definite organs in various pathological conditions.

It is quite possible, even, that a series of observations in this respect may throw some light on the question of tuberculosis. Even if it merely revealed to us that a given weight of a tuberculous lung yielded only the same weight of ash as a normal lung, the fact would be worth recording. For this purpose it is a question whether fragments of many of the interesting specimens in many of our museums which have been preserved in simple alcohol could not with profit be incinerated, and the resulting information be appended to the record of the specimen. At any rate the chemical incombustible constituents of diseased organs could, we think, with profit be ascertained, with the hope that it would throw some light on the more complex question of morphology.

It is not necessary to say that valuable information may be obtained from the ash of such subjects as had been treated for a prolonged period with iron, mercury or arsenic. It may even happen that, by some extra care, the process of incineration may be the the most efficient means of detecting poisoning by the last mentioned substance. Of course we do not forget that, without some precaution, the salts of arsenic and mercury would be volatilized, but whilst they are volatilized they must also, at a reduced temperature, be again deposited, and it remains for the chemist to determine the most efficient contrivance for recognizing its deposition.

CHOLERA AND PERSONAL HABITS.—The letter from our regular correspondent in Paris, in the JOURNAL of last week, was chiefly occupied with an account of the recent prevalence of epidemic cholera in that city, the writer selecting his facts principally from official reports and the discussions in the medical societies. This week we give another letter on the same subject, from an occasional correspondent who derived his information more from personal observations and inquiries during a temporary stay in Paris while the disease was in progress. Both correspondents represent the disease as commencing among the poorest and most unsanitary part of the population, the "rag pickers," and in the quarters occupied by them. Both emphasize the statement that those who were addicted to habits of dissipation and personal uncleanliness furnished by far the larger proportion of those who fell victims to the disease. And another writer states that of those admitted to the hospitals, at least 60 per cent., were known to be addicted to the habit of *drinking*.

The same general fact has been observed regarding every cholera epidemic of which we have a history. And yet, while our sanitarians and State Boards of Health have very properly issued circulars, urging upon the attention of municipal authorities and the people generally the necessity of strict cleanliness and ventilation of sewers, streets, houses, etc., as measures of prevention, comparatively slight allusions have been made to the equally important prophylactic effect of personal habits of temperance and virtuous living. We do not speak hastily when we express the opinion that indulgence in the use of fermented and distilled drinks with the personal irregularities of life occasioned thereby, have in past epidemics of cholera determined more attacks of the disease than uncleanly streets, bad sewerage, and imperfect house ventilation combined. In saying this we do not desire to detract in the least degree from the importance of giving the strictest attention to the latter by municipalities and health authorities everywhere. But more efficient means should be employed to impress the fact upon the minds of all classes of people, that attacks of epidemic cholera are directly invited by personal excesses and habits of intemperance! Such habits not only invite attacks, but they greatly increase the tendency to fatal results when attacks do occur.

AN INTERNATIONAL SANITARY CONFERENCE.—In an editorial in the *British Medical Journal* of Dec. 20, 1884, allusions are made to the international sanitary conferences on the subject of preventing the spread of epidemic cholera, held first in Constantinople in 1866, and second at Vienna in 1874, and another conference is suggested at the present time as likely to be productive of much good. At the conference of 1874 the efficacy of both maratime and land quarantine was denied, and only a limited amount of the former, coupled with inspection and detention of the sick, was deemed admissible. The establishment of an International Sanitary Commission, for practically enforcing the policy agreed upon, was then proposed, but never carried into effect. Since that time England has strictly adhered to the principles adopted at the Congress of 1874, only perfecting its practical details, while the continental nations, on the first appearance of cholera in Egypt, rushed back to all the cruelties and absurdities of both maratime and land quarantines, aided by sanitary cordons of the most absolute character. And yet while England has been unsparingly denounced, not only on the continent of Europe, but by some in our own country, as wantonly risking the safety of all Europe by adhering to her well-considered system of inspection and detention of the sick, we see the cholera, in its own good time, commence at Toulon and march steadily on, not by way of Liverpool or London, but directly through France, Italy, and some parts of Spain until it meets the cold weather of autumn in the more unsanitary streets of Paris. The suggestion of the *British Journal*, in favor of another International Conference at an early day, is a good one.

DEATH OF DR. HENRY A. MARTIN, OF BOSTON.—We have just received an interesting obituary notice of Dr. Martin, so long well known in connection with the cultivation and supply of vaccine virus, and who died on the 7th ult. We shall find room for the obituary in our present issue.

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY.—MEETINGS FOR DEC. 1 AND 15, 1884.

We were furnished with full reports of these meetings by the secretary, but the columns of the JOURNAL were so occupied that we had no space for them, and hence give the following abstract.

At the meeting of December 1, Dr. Robert Tilley presented the case of a boy, aged 6 years, who had received a very extensive lacerated wound of the scalp and face, but which, by a careful exercise of surgical skill, had been so repaired as to leave comparatively little deformity.

Dr. W. W. Jaggard read an interesting paper on "Palliative Measures in Ruptured Extra-Uterine

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Such "instructions and regulations" by which this result was accomplished was the vaccination of school children and adults, with bovine virus mainly, by competent physicians, who were obliged to certify to the result of their work, and not merely that they had performed the operation He states that "the efforts of the board met with but little opposition from the people" All this corresponds with the course of events and facts that occurred under our own observation and by our direction in Indiana during the same period

This is the "key-note" of the whole matter relative to the prevention of small-pox We need not notice further Divinity, through its "instruments," has given us knowledge of the means by which small-pox can be prevented, and yet as there are thousands who fight Divinity, we cannot be surprised that numbers of the same class, ignorant or depraved, fight the good things He sends, even though they perish themselves It is not proper that sanitarians should either skulk behind barriers or raise the white flag to avoid the onslaught of such natures A steady, vigorous, onward course is called for

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Dr Rauch, the secretary of the Illinois State Board has, as is well known by sanitarians, paid particular attention to the part taken by immigrants in the introduction and spread of small-pox in the United States and Canada, and he advances the following proposition as having been demonstrated by the operations of the Immigrant Inspection Service of the National Board of Health

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3 "A cautious sanitary surveillance of immigrant travel from the port of arrival to the point of ultimate destination, such surveillance to consist of repeated inspection, vaccination of all unprotected, systematic observation of suspicious sickness, prompt removal and isolation of small-pox or other contagious cases, disinfection of baggage, clothing, cars, etc, is essential to supplement whatever preventive measures can be secured before embarkation, during the voyage or at the port of arrival"

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The secretary estimates that the recent small pox epidemic cost the State a round total of nearly a half-million dollars, but if estimate is made upon the value of the time consumed in sickness, the diminished productive power and the expense of supporting the disabled survivors, and including the money value of lives lost, the amount would be swelled to a grand total of over fifteen million dollars But we can do no more than to commend the utterances relative to small-pox and its prevention that are found in this report for the study of every one interested in having the fatal disease stamped out

Such a work as has been accomplished in Illinois, cannot, we think, have been excelled in any other State, and this owing largely to the liberal ideas of the secretary and Board of Health, as to what was needed, and the energy with which it was prosecuted There was neither hot headedness nor hesitancy The opposing forces appear to have been met and handled with fearless tact

The Board of West Virginia cannot show by its reports the same *amount* of work accomplished as that of the Illinois Board, as it was only established in 1881, the act creating it being adopted March 8, 1881, the same year and month that the act creating the State Board of Indiana was enacted, but we can not criticise the *quality* of the work as shown by this report Like the Illinois law, that of West Virginia empowers the Health Board to act also as a board to determine the qualification of those engaging in the practice of medicine, and otherwise to "regulate the practice"

THE REPORT OF THE SECRETARY TO THE GOVERNOR OF THE STATE

Gives the proceedings of the several meetings of the Board, copies of circulars issued, of blanks for certificates of qualifications of physicians, etc The work of the Board does not embrace the collection of vital statistics, and in viewing the financial statement this fact must be kept in mind We find that the total receipts from special tax, fees, etc, from June 13, 1881, to August 10, 1883, were $1,745, total disbursements, $3,241 51 The excess of disbursements over receipts ($1,496 51) was paid by the State The salary of the secretary was $500 per annum Certainly all these figures show that the work in West Virginia has been hampered by want of funds, this, however, is the case in nearly all States where similar work has been organized It is also a fact that secretaries of boards of health, as a rule, must act because of personal interest in the welfare of the work, certainly not because of the money returns

Both Dr Rauch and Dr Reeves are men who have worked the matter from the ground up, but through all their labors have been somewhat more fortunate than others in escaping trouble in shape of onslaught from professional enemies or political aspirants THAD M STEVENS, M D

Indianapolis, Indiana

FOREIGN CORRESPONDENCE

LETTER FROM PARIS—THE CHOLERA EPIDEMIC

FROM AN OCCASIONAL CORRESPONDENT

PARIS, Nov 22, 1884

MR EDITOR —Believing that a short account of the recent epidemic of cholera which has visited this city may be of interest to some readers of the JOURNAL, I send you a brief description of what it came in my way to observe

I reached Paris, Oct 20 In Berlin the weather had been cold with frequent drizzling rains and a dull, dark and dismal atmosphere I was told that a somewhat similar state of things had also been present in Paris, although the weather was fine on my arrival During the four weeks of my stay in this city, there have been two rainy and two or three cloudy days The weather during the remaining time has been generally clear, and the temperature cool, the midday averaging perhaps 50° F to 55° F

The drainage of the greater part of the city seems to me excellent The sewers are supplied with an abundance of water from the public fountains and other sources, and the mains are regularly opened in the streets or beneath the sidewalks for the purpose of additional flushing I have not been able to detect any odor from the sewer openings and in the houses where I have been there was not the slightest perceptible trace of sewer gas

I did not go through the sewers, but a friend who travelled some five miles through main or contributary sewers on Oct 25, described the condition of the sewerage as very dilute, and except in a few localities at the junction of trunk sewers there was no offensive odor The telegraph system of Paris is also conveyed in the interior of the sewers, and one of the men constantly employed in repairs and new construction said that he had not been sick or in any way unpleasantly affected by the work in the sewers during five years of service

In some limited districts of Paris, the improved sewerage system has never been fully carried out, and one may there see still the old form of gutter near the sidewalk, with more or less offensive and discolored contents The older houses are also built in the shape of a square block inclosing a small court-yard where the water supply for the entire building is located, and the drainage, except from the latrines, flows through the court-yard and under the main entrance to the street in an uncovered gutter Here there may at times be noticed a somewhat offensive odor

The food supply seems to be exceptionally good I visited the great central market "les Halles" at one o'clock in the morning I could observe nothing in the least degree questionable in quality and was struck by the absence of "second class" articles of food consumption There is evidence of a vigorous inspection of articles of food supply

The water is of surface origin and is soft in quality, clear in appearance and free from perceptible odor or taste I believe the house service is generally by a supply tank and not by direct flow from the mains

I have no knowledge of the milk supply further than the fact that in several places of pleasure resort there are stables in which cows are kept and visitors enter the stalls and for a small price receive a cup of milk warm from the cow I tasted no milk which impressed me as bad, and saw no dirty milk

Under these conditions cholera appeared in the city, and after four or five days had assumed such proportions in the form of an epidemic that it was impossible to further conceal the fact of its existence

The first cases occurred in one of the poorest districts in the city and were for a time confined to certain large tenement houses, inhabited by rag-pickers and occupied in part as a depository or depôt for rags of all kinds The first patients were without an exception those of intemperate and filthy habits, who were badly housed, insufficiently nourished, poorly clad and much exposed to cold and wet Many of the earlier cases died without treatment or were treated at their homes, but soon arrangements were adopted for the immediate transportation of cholera patients to the various hospitals, where special isolated wards were devoted to their care Removal from the patient's home was never made obligatory, nor was it considered necessary to place the infected houses in quarantine or to establish police supervision over the residents At this time no restrictions were placed on travel between Paris and the southern parts of France

For some days after the official announcement of the existence of an epidemic the disease increased in severity and extended from its point of first appearance to nearly every ward of the city In nearly all instances some means of infection from previous cases could be traced, but in some cases it was not possible to discover the manner by which the disease had been acquired

A volunteer medical service was at once established, and with the cooperation of the municipal sanitary board and the aid of the police, the city was thoroughly patrolled and every offensive place either cleansed by the authorities or by the owners or occupants of the property The smell of disinfectants was frequently noticeable, and the public streets and squares were, if possible, kept even more scrupulously clean than before In many streets the gutters were constantly flushed by opening the hydrants, and the public urinals were disinfected Each day the Mayor issued an official bulletin in which the number of cases under treatment and the number of new cases was announced, as well as the rate of dissemination of the disease by wards in the city It was stated that the highest rate only amounted to one patient to 17,000 inhabitants The cases were usually of a mild type, the mortality never, to my knowledge, exceeded 33 per cent of the number of patients, and except in an outbreak which occurred in an asylum for the aged supported by the scanty means of a few sisters of a religious order, there was no appearance of especial virulency about the epidemic In this asylum the inmates who took the disease were, I believe, all above 70 years of age, and the mortality, as might have been expected, was relatively very high Here also occurred the only instance of the entire epidemic in which a nurse or attendant was known to take the disease One of the sisters, who was constantly in the room devoted to cases of cholera, is said to have taken the disease and, after two days, died from it

As may be supposed, many persons then in Paris were much alarmed by the presence of cholera, as well as by the apprehension that neighboring cities might establish quarantine against persons or commerce from French ports, and a general exodus of travellers and strangers at once took place

It is estimated that within four days more than 30,000 people crossed the channel to various ports in England, nearly all of whom came from Paris The hotels became literally empty Many families who were established for the winter at once left the city, and a vast change was immediately noticeable in the clubs, thoroughfares, and fashionable restaurants Strange to say, the resident inhabitants of Paris did not become in the least frightened No signs of a panic were at any time observable The theatres were better filled during the first week of cholera than during the previous week, and no change was noticeable in the behavior of the common people, that element which is generally most easily frightened by any unusual occurrence

After about ten days of maximum severity the number of cases and the gravity of the disease became gradually diminished, until to day the epidemic is at an end Cases of so-called "choleraic" disease were reported for some days after the subsidence of true cholera, but these were uniformly of mild character, and ended in every instance by recovery

The reports of cases in the military establishments are very unsatisfactory, and are not taken into account, though there were doubtless a few cases in the barracks

The reported treatment consisted in a general way in the moderate use of anodynes, the administration of stimulants, the application of external heat, and the nourishment of the patient by bland food in liquid form In some cases nutrient enemata were employed, and the use of saline intra-venous injections was also reported No special mode of treatment has seemed to influence the disease in an appreciable manner The favorable change in the epidemic and its final subsidence are generally referred to the lower temperature, and particularly to the frosts of the middle of November

In review we have the outbreak of a limited epidemic in the centre of a large city manifesting itself especially among rag pickers, and for a time apparently confined to them and to their habitat alone Afterward the disease spread to a moderate extent, and was reported from nearly every part of the city The patients were almost without exception persons who were underfed, insufficiently protected, dissolute, and intemperate. To my knowledge not one stranger was attacked during the entire epidemic, and no English-speaking person was known to suffer from the disease.

But few residents of Paris left the city, and there was no appearance of fright, much less of panic, to be observed. The disease is entirely quenched, and will doubtless not recur until the approach of warmer weather, when it will, in the opinion of most of those with whom I have spoken, again appear, and will far exceed the present epidemic, both in the extent of its ravages and in severity. The disease has already been recognized in Nantes, in Yport, in Brussels, in Marseilles, in Toulon, it has crossed the border into Northern Italy, it has invaded Spain, and it has been reported in some other places. It is to be feared that the advent of spring will arouse the disorder anew, and that the entire west of Europe will be devastated by it.

The epidemic just ended has not contributed anything material in the support of the theories of Professor Koch as to the origin, or "Wesen," of cholera. I have not been able to find, either here or in Berlin, any ardent support for the claims of the comma bacillus as the cause or essential element of the disease.

The importance of the bacillus of tubercle is generally conceded, and in Berlin I saw specimens which were made for purposes of diagnosis, thus showing that the presence of the organism is recognized as of practical value in daily routine, but the same authority spoke of the bacillus of cholera with some degree of distrust, and expressed the opinion of the profession as being that the bacillus is a concomitant, but not clearly the cause, of the disease.

It is yet too early for the official reports of the sanitary authorities and the medical department upon the recent epidemic in Paris, but I am led to believe that efforts are being made to utilize the presence of the disease as a study for guidance in the expected revival of the disorder in the near future.

It is to be hoped that this important information may be published in advance of the threatened outbreak of cholera, but, in the meantime, every precaution is being employed to secure the best possible sanitary conditions, which must favor a mitigated severity in any epidemic disease. A. N. B.

BERLIN LETTER.

BERLIN, Nov. 24, 1884.

Wandering Kidney — Hydronephrosis — Perinephritic Abscess—Abdominal Fistula.—In my last letter I mentioned a case of wandering kidney which I saw at the poli-klinik of Dr. Leopold Landau, Privat Docent. There is so much of general interest in this subject, and so much of especial merit in this case that I translate its history from "Die Wanderniere der Frauen"—a small brochure too little known in America, and yet one in which the whole subject is reviewed by Dr. Landau in a masterly manner. "C. M., 60 years old, has borne two children, one at forty and the other thirty-six years age. At her last confinement she had a prolapse of the uterus. For the last ten years she has suffered from pain in the loins, constant uneasiness in the abdomen, cardialgia, gastric derangement, dragging pain in the loins and pressure upon the bladder. About eight years ago she first noticed a wandering swelling in the abdomen, the pain, however, from time to time, disappeared, and several physicians who examined the case thought it an echinococcus of the peritoneum, or an ovarian tumor, or a tumor of the liver. On the 14th of Sept., 1879, she entered my poli-klinik.

"*Present Condition.*—A pale, emaciated woman, with prolapse of the anterior vaginal wall and uterus. In the right lumbar region a firm, elastic, round tumor could be felt, which extended upwards to the liver (being disguised by the latter), inwardly as far as the linea alba, outwardly to the axillary line, and downward to within 3 ctm. under the level of the umbilicus. By pressing downward a sulcus can be made out between it and the liver. The percussion sound over the tumor is a dull tympanitic, and is dull at its highest point. In the line of the axilla it is dull. Puncture is made with a fine Dielafoy needle, and about 3 cbctm. of water-like fluid is withdrawn, which is white by transmitted light, clear without any form elements, with no albumen, and rich in chlorides. The diagnosis was between echinococcus of the liver or kidney, or a hydronephrosis of a wandering kidney. After another examination of the woman in different positions, on the 20th Sept., 1879, and after another puncture (removing also about 3 cbctm.), I fixed upon the following day for the operation. On this day, however, the swelling disappeared, and in its place percussion disclosed the intestine only. It was impossible to arrive at any definite conclusion, even after elaborate palpation and examination. On questioning the patient, who found herself in good condition, she stated that after yesterday's examination she had voided a very large amount of clear light urine, which did not seem to be at all strange to her, as the amount of her urine varied. The urine itself was normal. It was now questionable whether the contents of the cyst had emptied itself through the fine puncture of the sac into the peritoneum, or whether it had emptied itself through the natural channels. In the former case the diagnosis would be doubtful, in the second it would be hydronephrosis. After an examination of different parts of the body, especially in the knee-elbow position, the sharply-bent and tortuous urethra might have unwound itself, or pressure upon the sac having been removed (by puncture), the valve-like opening might have opened itself. For the first weeks, however, the diagnosis was doubtful, as the pathognomonic urticaria of echinococcus was not present, and there was no re-appearance of the tumor. Again, in Feb., 1880, the patient returned, complaining of an unbearable pressure in the abdomen, and with the same train of symptoms as formerly. The diagnosis of hydronephrosis was now certain, and was confirmed by a careful chemical examination by Dr. Lewin (Priv. Docent) of a large quantity of fluid which had been withdrawn by aspiration. 'The fluid was not clear as far as could be seen by gas-light, it was of alkaline re action, the cloudiness disappeared upon the addition of nitric acid This showed it to be due to phosphatic salts Uric acid crystals were not to be found On account of the uncertain light the test for uric acid by the *murexid* re action was not shown Nevertheless it was certainly shown that the urates were present, for after the precipitation of the phosphates the addition of mercuric nitrate to the fluid a white precipitate of the *urate of mercurous oxide* was seen The urates are to be shown more easily by the change into nitrate of urea When the fluid, after the addition of nitric acid, was left to natural evaporation, there were found very characteristic rhomboidal, tile like crystals, overlapping one another, of nitrate of urea ' Some time after this it was my good fortune to witness the return of the cyst-filling and emptying process, with the same symptoms as regard the excretion of urine At last the sac did not disappear again The general condition of the patient was growing worse, and a trip to Carlsbad, on account of her gastric troubles, was advised A continued fever followed upon this trip Formerly the puncture gave exit to a clear fluid, now it contained many pus corpuscles, so that the time of operation was not to be postponed The tumor had grown larger, was more tense, and was very sensitive to the lightest touch On the 20th June, 1880, I undertook the operation, starting the incision from the bend of the ribs upon the right, parallel with the ob int muscle, toward the umbilicus—a distance of 12 ctm This disclosed a fleshy-looking cyst-wall, which, on account of its great tension, could not be grasped by the hand, hence it was punctured, and about 300 cbctm of pus like fluid were withdrawn, after which the incision was extended 3 ctm to the axillary line It was now easy to grasp the tumor upon all sides It was now seen to extend up to the liver, and to be attached to it, downward and anteriorly it was attached to the gut, and outwardly to a *second* tumor, which extended to the spinal column Puncture showed this second tumor to be an abscess caused by perinephritis Its contents were thicker, tougher, and more like pus than the fluid in the hydronephrotic sac On account of the perinephritic abscess total extirpation was out of the question The walls of the cyst were attached by sutures on each side to the abdominal parietes, the sutures being inserted vertically to the incision By this means the peritoneum was protected from fluid entering its cavity, which proved to be of great importance, as the walls of the perinephritic abscess gave way, and an abundance of pus-like fluid escaped, when an attempt was made to grasp the tumor from behind and lift it out of the cavity A second incision, in the same direction as the first, is made into the sac, whose walls have been sutured to the abdominal parieties, through the perinephritic abscess, which is separated by the walls of the atrophied kidney, thus establishing a common wound cavity The part of the hydronephrotic sac lying next to the anterior abdominal parieties is not the usual pelvis of the kidney, but the compressed atrophied kidney substance, which, upon incision, bled profusely, and had to be ligated *en masse* The fluid thus obtained was like pus The hydronephrotic sac, larger than a child's head, was everywhere covered with the compressed kidney substance The opening of the ureter cannot be found The sac is now attached by twelve more sutures, and drainage is established On the 19th of July the whole wound is healed, having only an opening as large as the end of the finger, at the inner angle of the wound, through which a drainage tube 14 ctm long is easily inserted into the cavity which gives exit to the urine, which was first excreted in small quantity, but afterward in greater abundance The tube also permitted the washing out of the cavity The pus like fluid at first secreted soon cleared up, and became more like urine The sac is growing smaller The flattened, atrophied kidney chalices are getting thicker and hypertrophied After three months and a half the ligatures came out The papilla renalis can be felt at the inner edge of the wound, somewhat atrophied The patient follows her daily avocations without any inconvenience "

The case is an interesting curiosity of medical literature In my next letter I shall describe the treatment of *syphilis by massage*

H R B

NECROLOGY

Martin, Henry A, m d A man's best epitaph is written in his deeds The emphasis of this truth finds expression in the history of Dr Henry A Martin, who died at his residence, in Boston, December 7

Dr Martin was born in London, England, July 23, 1824, and was the eldest son of Henry J Martin, Esq, m r c s The family is traced down the centuries through a long line of distinguished sires, ennobled by race and deed Gen James Agnew, who was killed at Germantown while in command of the British forces, was his great grandfather He was the grandson of the Earl of Eglintonn, and was in command of British troops in Boston at the outbreak of the Revolution

Dr Martin was graduated at Harvard in 1845, and commenced the practice of his profession in the Roxbury district in 1847, where during an entire generation he has labored with a steadiness of purpose and faithful zeal equalled by very few in any calling His attention was early called to the necessity of more thorough and systematic methods of vaccination to prevent the ravages of small-pox, and so widely was he recognized as the authority upon this subject, that upon the first serious appearance of that disease among our soldiers during the Rebellion he was summoned by the War Department to superintend the vaccination of the troops, going early to Fortress Monroe and other posts for that purpose He then entered the service as one of the first "Surgeons of Volunteers," was Medical Director of Southeast Missouri two years, in charge of hospitals at Ironton and Cape Girardeau, was Medical Director at Norfolk and Portsmouth, Va, and Surgeon-in-Chief First Division Second Army Corps (General Miles), and was breveted Lieutenant-Colonel for "gallant and meritorious service"

After repeated failures to secure the successful cultivation of animal vaccine in America, Dr Martin sent an agent to Europe, had the methods there used in propagating virus carefully studied, and with virus thus obtained he inoculated a herd of young animals, vaccinating and re vaccinating at regular intervals, and in this way secured an unbroken series of the Beaugency stock of virus, which has been continued until the present It is very probable that no man, even including the immortal Jenner, ever gave a more careful attention to the study of small-pox and the means of its prevention than Dr Martin, and, except to the great discoverer, the world owes no man in this field of preventive medicine an equal debt of gratitude

Dr Martin has been indefatigable in his gathering of everything possible published upon this subject, and his literary collection is believed to be unique By his aid a very considerable number of epidemics have been eradicated and numberless lives saved His report on animal vaccination made to the American Medical Association, 1877, was very flatteringly reviewed and quoted from by all the leading medical journals and authorities in Europe

Many years since he became interested in the use of elastic compression applied in surgery This, after many experiments in great variety, resulted in the giving to the profession the pure rubber bandage now world-wide known by his name This he applied to a great variety of purposes In varicose ulcer and synovitis of the knee it has proved of such exceptional service that it may be safely classified as one of the most valuable contributions in modern surgery He also originated the operation for tracheotomy without the use of tubes

Dr Martin was a man of fine physique and presence, possessed an excellent voice, an exceptional command of language, was a ready, fearless debater, once met as an opponent never to be forgotten, a firm and steadfast friend He denounced show and pretence with Quixotic vehemence, while he recognized true worth and learning In the literature of medicine he was a master, and never wearied in the study of history Many a supposed invention of modern surgery has he traced to its real origin and demonstration in the long forgotten work of some ancient author

He was particularly fond of art, especially that of engraving His collection is filled with the rich treasures of the great masters, and his library is one of the most valuable medical libraries in Boston

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Henry O Marcy, M D

Boston, Mass

MISCELLANEOUS

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, United States Army, from December 27, 1884, to January 2, 1885

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Vol IV | Chicago, January 17, 1885 | No 3

ORIGINAL ARTICLES

THE PHYSIOLOGICAL ACTION OF COCAINE ON THE COMMON FROG, WITH SPECIAL REFERENCE TO ITS ACTION ON ORGANS AND TISSUES[1]

BY HERMAN M BIGGS, A B , M D , NEW YORK

In the following experiments the hydrochlorate of cocaine, prepared by Merck, of Darmstadt, was used It is uncrystallized, of a dull white color, has a slightly bitter taste, nearly neutral reaction, and is very soluble in water, alcohol, ether and chloroform The solutions used were all made with water, and were 1, 2 and 4 per cent in strength

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General Action —The effects of cocaine given by hypodermic injection begin to manifest themselves very quickly, and in a few minutes have reached their maximum When large doses are given, the action is seen almost immediately, and the duration and severity of the symptoms are in proportion to the amount used After small doses the animals begin to recover at the end of a few minutes , but if the quantity administered is large, it is many hours and it may be several days, before the effects have entirely disappeared Lethal doses are from 04 grm upwards and when death occurs from the effects of cocaine, it is only after the lapse of 24 or 36 hours

Small Doses —When a small toxical dose of cocaine (005 grm) is injected under the skin of a frog there are usually at first no perceptible effects In some cases there is a short period of excitement, but this is not always present, nor is it as a rule, very strongly marked when present The frog soon becomes quiet, he moves less quickly after stimulation is applied, and his respirations are somewhat increased in number In a few minutes he becomes perfectly motionless, and changes his position only after considerable irritation, and then with an evident effort Presently his head drops, the respirations become slower and the pupils somewhat dilated Twenty or twenty-five minutes after receiving the poison he lies flat on his abdomen and neck, with the posterior extremities extended, and is unable to raise or balance himself If strong stimulation is applied, he makes a vain effort to spring, which sometimes takes the form of a partial clonic convulsion There is marked loss of power over his extremities, and this appears earlier and is much greater in the posterior than in the anterior The action of the heart is somewhat slower than normal In a short time he begins to recover, his respirations are more frequent and deeper, he raises his head and is able to balance himself when not disturbed The last function to return is complete voluntary power in his limbs An hour or an hour and a half after receiving the poison, the animal has become quite normal again

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Boston, Mass

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An hour later the animal lies in the same position Neither the action of the heart nor any respiratory movement is perceptible, and the reflexes are less marked than before About two hours and a half after receiving the poison, the frog begins to show signs of recovery It makes some slight voluntary movements and the reflexes become stronger Three hours later he turns over on his belly, and irritation calls forth characteristic clonic contractions There are as yet no signs of returning respiration In twelve or fourteen hours the frog has entirely recovered

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[1] These experiments were made in the physiological laboratories of Profs Dubois Reymond and Christian, in Berlin

Large Doses —When large toxical doses of cocaine (025 grm) are given to a frog by hypodermic injection, the effects begin to manifest themselves almost instantly All the phenomena observed in the previous experiments, here follow each other in rapid succession and in a much more intense form There is no period of excitement In two or three minutes respiration is labored, pupils dilated with opisthotonus, heart's action slow and reflexes greatly diminished The frog has a very anxious expression and in a few minutes more he drops motionless on the table, extended at full length There is only a weak reflex after severe irritation Respiration ceases with the lungs in inspiration After many hours, if the dose has not been lethal, signs of returning life begin to show themselves, but it is two or three days before the animal has entirely recovered After the exhibition of a lethal dose, the heart continues to act for twenty-four or thirty six hours and then stops in diastole

Action on the Heart —When a frog has been poisoned by cocaine by hypodermic injection, the action of the heart is either unaffected or there is a diminution in the frequency of its pulsations After very small doses (001 grm) there is no perceptible influence When a somewhat larger amount is given (005 grm), the frequency of the heart's action is reduced from eight to twelve pulsations a minute, and it becomes irregular and intermittent In the course of two or three hours the influence of the drug has passed off and the action of the heart becomes perfectly normal again Large toxical doses (025 grm) cause an almost immediate reduction in the number of pulsations to six or eight per minute The heart becomes engorged with blood and its action is very much labored and irregular The alternate action of the auricles and ventricle is replaced by an irregular action, and long pauses occur in the pulsation of the ventricle The ventricle is affected earlier and more severely than the auricles, and when paralysis finally occurs, if a lethal dose has been given, the ventricle ceases to pulsate a long time before the auricles

Experiment I —Medulla destroyed Heart exposed ♏ iv sol cocaine (1 per cent)= 0025 grm injected hypodermically

Time	*Minutes after Cocaine given*	*Pulsations of Ventricle in 15 sec*	*Pulsations of Auricles in 15 sec*	*Amt Cocaine*	*Remarks*
11 20		12 12	12 12	grm 0025	
11 24		12 12	11 11		
11 26	2	11 11	11 11		
11 30	6	11 11	11 11		Action somewhat labored
11 40	16	10 11	10 11		
11 45	21	10 11	10 11		
11 55	31	10 11	10 11		
12 05	41	11 11	11 11		

Experiment II —Medulla destroyed, heart exposed ♏ viij sol cocaine (2 per cent)= 01 grm injected hypodermically

Time	*Minutes after Cocaine given*	*Pulsations of Ventricle in 15 sec*	*Pulsations of Auricles in 15 sec*	*Amt Cocaine*	*Remarks*
3 43		11 12	11 12		
3 45		12 12	12–12	01grm	
3 47	2	11 11	11 11		
3 57	12	8 8	8 8		Irregular Occasional long pauses
4 01	16	8 8	8 8		
4 04	19	8 9	8 9		
4 10	25	7 7	7 7		Irregular and intermittent Occasional pauses of ventricle while auricles continue to act
4 15	35	7 7	8 9		
4 30	50	7 8	8 9		
4 36	56	7 8	10 9		
4 52	1h 12m	8 9	9 8		
5 00	1h 20m	9 9	9 9		Acting regularly

Experiment III —♏ x sol cocaine (4 per cent) 025 grm injected hypodermically

Time	*Minutes after Cocaine given*	*Pulsations of Ventricle in 15 sec*	*Pulsations of Auricles in 15 sec*	*Amt Cocaine*	*Remarks*
4 12		11 12″	11 12″	grm 025	
4 14		11 12	11 12		
4 17	3	4 3 4	8 9		Very irregular and labored in its action
4 21	7		7 8		
4 24	10	3 3 3	6 6		Heart engorged with blood Ventricle cannot completely empty itself
4 27	13	3 2 3	4 5		
4 33	19	3 7	6 6		Action very irregular and intermittent
4 35	21	3 2 0	6 6		Pause of 15 sec in action of ventricle
4 40	26	0 0 0	4 4		Pause of 60 sec in action of ventricle
4 50	36	3 2 0	5 5		
5 00	46	0 0 3	5 6		

If the heart of a frog be exposed and three or four minims of a (4 per cent) solution of cocaine be injected directly into the ventricle, the heart is immediately paralyzed and stops in systole If now, as a contra experiment, into the heart of another frog the same amount of water or normal salt solution be injected, no effect is produced save that arising from the physical injury, and this soon passes away, but afterwards the injection of this same quantity of a (4 per cent) solution of cocaine causes, as before, immediate paralysis of the heart in systole

Again, when three or four minims of the same solution of cocaine are injected into the median abdominal vein, or into one of the great veins of the heart, paralysis either immediate or after two or three beats results In these cases the heart stops in diastole

The local application by means of a camel's hair pencil of a weak solution (1 per cent) of cocaine to the heart muscle causes a temporary diminution in the frequency of its pulsations

Experiment IV—Medulla destroyed Exposed heart

Time	*Pulsations of heart in 1 minute*	*Amount Cocaine*	*Remarks*
10 25	33		
10 50	34	Cocaine in 1 per cent solution	
11	34		
11 04	24		Heart somewhat distended with blood
11 13	29		
11 18	24		
11 34	34		
11 36	17		Action labored and irregular, but soon becomes normal in frequency and character
11 44	30		
11 47	17		Irregular Heart engorged with blood
12 10	26		

Action of Cocaine in Substance on the Heart—*Experiment V*—Medulla destroyed, heart exposed Cocaine in substance applied to both auricles and ventricles In about three minutes the heart had ceased to pulsate The ventricle is in systole, and the auricles are in diastole

Experiment VI—Medulla destroyed, heart exposed Cocaine in substance applied to heart After four minutes the heart had ceased to pulsate Ventricle is in systole, and the auricles in diastole

Four or five hours later, in neither of these cases had the heart commenced again to act (See Experiment VII)

Experiment VII —Conditions same as previous cases Results same The ventricle is firmly contracted and pale The auricles large and distended with venous blood In the last case, eighteen hours later, the heart was found to be again pulsating slowly and feebly It continued to act for about six hours, and then stopped In a number of succeeding experiments it was observed that in most cases, after many hours, the heart commenced again to act but this was not true in all cases, and when the solution was injected into the cavity it never occurred In all cases the ventricle was in systole, and in all but one the auricles were in diastole

Cocaine in substance applied to either one of the auricles, or to the ventricle separately, caused a temporary paralysis of the respective portions of the heart, and a diminution of the frequency of the pulsations of the heart itself, but not paralysis, unless it was used in large quantity

Influence on Respiration —Small toxical doses of cocaine (0025 grm) cause at first a slight increase in the frequency of the respirations, but soon they become much diminished, and are reduced to six or eight per minute These are very superficial, and sometimes, even with these small doses, all respiratory movement disappears for a short time

After medium-sized doses (from 005 grm to 01 grm), the temporary rise in the number of respirations per minute is less marked, and the depressing effects of the poison are more quickly observed The decrease in the frequency is much more rapid than after small doses, and respiration usually becomes imperceptible in about twenty-five or thirty minutes

With large toxical doses (from 025 grm upwards) there is no semblance of a temporary increase The respirations rapidly diminish in number and change in character, and usually in ten minutes have entirely disappeared After these large doses respiration stops after a full inspiration, in the other cases apparently after expiration Respiration does not appear again until after at least twenty-four hours, and often it is a much longer time

Experiment VIII—♏ iv sol cocaine (1 per cent) = 0025 grm , injected hypodermically Frog free under glass jar

Time	*Minutes after Cocaine given*	*Respirations in 15 sec*	*Amt Cocaine*	*Remarks*
10 15		18	0025	
10 17	2	20		
10 20	5	24		Irregular but rather deep
10 22	7	20		
10 25	10	14		Quick, jerky and superficial
10 28	13	12		
10 30	15	10		
10 33	18	7		
10 36	21	5		Long
10 38	23	8		Very superficial
10 40	25	16		Very superficial , scarcely perceptible
10 44	29	12		
11 12	57	18		Natural
11 20	1h 5m			

Experiment IX —♏ viij sol cocaine (2 per cent)= 01 grm injected hypodermically Frog free under glass jar

Time	*Minutes after Cocaine given*	*Respirations in 15 sec*	*Amt Cocaine*	*Remarks*
10 48		18	grm	
10 50		18	01	
10 53	3	22		
10 55	5	20		
10 57	7	18		
11 03	13	16		
11 07	17	9		Very superficial
11 15	25	8		Scarcely perceptible
11 28	38	None		

Experiment X —♏ x sol cocaine (4 per cent)= 025 grm injected hypodermically Frog free under glass jar

Time	*Minutes after Cocaine given*	*Respiratio's in 15 sec*	*Amt Cocaine*	*Remarks*
11 33		18	grm	
11 35		18	025	
11 37	2	16		Difficult respiration
11 38	3	14		
11 39	4	12		Very superficial
11 40	5	None		

ACTION ON NERVOUS SYSTEM

Spinal Cord —Very small doses of cocaine slightly increase the reflex irritability of the spinal cord for a short time When larger doses are given, the period of heightened reflexes is very short (if it is at all present) and then follows a period of much longer duration, when they are decidedly diminished After large toxical doses, there is no period of greater irritability, but almost immediately the general reflexes are very much lessened, and there is soon almost complete loss of all response to mechanical or chemical stimulation Loss of response to strong electrical stimulation never occurs except just before death

Sensory and Motor Nerves —(From B von Anrep) Small doses heighten the irritability of the sensory fibres without having any effect on the motor filaments Large doses cause after a slightly increased irritability of the sensory fibres of short duration a diminution of the same Large toxical doses almost completely paralyze the sensory filament, and diminish greatly the irritability of the motor Tactile reflexes are much diminished The pneumogastrics are completely paralyzed after doses of moderate size The small doses have no perceptible influence on the inhibitory fibres of the pneumogastrics After the poisoning they either remain as before responding to the same strength of current, or they are wholly paralyzed

Experiment XI —Heart exposed Both pneumogastrics divided

Time	*Contract's of the Ventricle in 15 sec*	*Contract's of the Auricles in 15 sec*	*Amt Cocaine*	*Remarks*
8 30	13 14 14	13 14 14		
8 40	14 14 14	14 14 14		Stimulation of rgt pneumogastric nerve
	7 4 2	7 4 2		
8 55	13 14 14	13 14 14		Stimulation of left pneumogastric nerve
	3 3 1	3 3 1		
9 05	14 14 14	14 14 14	03grm	
9 10	7 6 6	9 6 6		Stimulation of right P nerve
	5 5 5	8 8 8		Stimulation of left P
9 20	5 4 5	8 8 8		
10 00	2 2 2	4 5 4		
11 00	2 1 2	3 4 3		

Local Action on Nerve-Trunks —Cocaine in weak solution (1 per cent) When applied directly to the nerve-trunks after a very transient period of increased irritability, depresses greatly and finally paralyzes the nerve If it is applied in strong solution (4 per cent or more), the paralyzing action is almost instantaneous, and is attended by no period of increased irritability If, however, the solution is not left in contact with the nerve for too long a time (and the nerve is still in its natural connection), it will regain all its former irritability in from one and a half to two hours

Experiment XII —A preparation of the sciatic nerve and the gastrocnemius muscle of a frog is made in the usual manner, and in as fresh a state as possible, is arranged on the muscle-telegraph of Prof Dubois Reymond, and is then connected with the induction coil of his Sliding Induction apparatus, a simple key intervening The nerve is placed in a moist chamber and non-polarizable electrodes are used A 1 per cent solution of cocaine is applied by means of a camel's-hair pencil to the nerve from time to time The figures in the second column indicate in centimetres the distance that the secondary coil is from the primary at the time that contraction occurs

Time	*Centimetres*	*Amt Cocaine*	*Remarks*
10 10	70	1%	
10 20	43		
10 25	37	1%	
10 30	33		Contractions very feeble Cannot produce tetanus
10 35	No response		

Control —*Experiment XIII* —Conditions same as last Water used first, then solution of cocaine

Time	*Centimetres*	*Water and Sol Cocaine*	*Remarks*
10 15	93	Water	
10 20	97*		97 is limit of the distance of second coil from first
10 30	97		
10 40	97		
10 45	97	Cocaine in 1% sol	Active contractions
11 15	No response		The irritability rapidly diminished after the application of a solution of cocaine, and at the end of 30 minutes the nerve was completely paralyzed

Experiment XIV —Conditions same as XIII

Time	*Centimetres*	*Water or sol Cocaine*	*Remarks*
11 10	87	Water	
11 20	97		
11 40	97		Very active contractions
11 50	46		
12 05	42		
12 35	36	Cocaine 1% sol	After being in water for one hour and a half, all irritability disappeared in six minutes when cocaine applied
12 41	No response		

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*The irritability of a nerve is often greater a short time after removal than at time of removal

Experiment XV—Conditions same as XIII Cocaine in 4 per cent sol used

Time	*Centimetres*	*Sol Cocaine 5%*	*Remarks*
10 50	50		
10 55	50	4%	
10 56	47		
10 59	No response		In a number of other experiments with the action of a 1% sol on nerves, all irritability had disappeared in from 15 to 35 minutes

Experiment XVI—If a nerve muscle preparation be made from a frog poisoned by cocaine, the irritability of the nerve is found to be much diminished (This is also true of the muscle) The strength of current required to produce a muscular contraction is decidedly greater than for that from a normal frog The muscular pulsations are shorter and less powerful, and it is impossible to produce tetanic contractions (if the amount of the drug given has been at all large) When the interrupted current is passed through the nerve for some time, there are several short, quick, feeble pulsations of the muscle caused and then there is no more response The contractions are very similar to those produced by stimulation applied to a nerve poisoned by the local application of a solution of cocaine

Experiment XVII—Medulla destroyed Sciatic nerve of one leg carefully exposed, as little injury being done to the vessels as possible The irritability of the nerve is accurately determined with the sliding induction apparatus A solution of cocaine (1 per cent) is then applied till the nerve only responds to the stimulus of a very strong current Normal salt solution is then substituted for the solution of cocaine, and in the course of an hour and a half the irritability of nerve has completely (or almost completely) returned

Experiment XVIII—Medulla destroyed Sciatic nerve exposed on one side and a cord is passed carefully under it and around the limb so as to include all the tissues of the limb except the nerve, and is then firmly tied—the frog is poisoned by a moderate dose of cocaine The nerve of the other leg is now exposed, and the comparative irritability of the nerves on the two sides is determined It is found that it requires a much stronger current to produce a muscular contraction in the leg not shut off from the circulation than in the bound leg If the irritability of the nerves is tried from time to time, it is found that the irritability gradually returns to the poisoned nerve, and that in the course of an hour and a half or two hours, it has become as great as that of the protected leg From these two experiments it is seen that the irritability of nerve-trunks, whether diminished by the local application of a solution of cocaine or by cocaine given by hypodermic injection, is regained in about the same length of time It would therefore seem probable that the action in both cases was a purely local one

Experiment XIX—If the nerve from a nerve muscle preparation be immersed for a few seconds in a solution of cocaine and then be removed, it is found that the irritability is very much increased The slightest touch of a steel instrument throws the muscle into violent tetanic contractions If the nerve be now again immersed for a longer time, the irritability becomes very much diminished and is finally lost to all forms of stimulation When the nerve is first placed in the solution, no irritation is caused by the immersion

The influence of cocaine on the nervous system would not be complete without an allusion to the apparently marked effects of the drug on the power of coordination, which all frogs poisoned by cocaine show It is particularly manifest after doses of moderate size

Action on Striated Muscles—Small doses of cocaine given hypodermically have little effect on the excitability of the voluntary muscles, but large doses diminish their excitability very decidedly The character of the muscular contraction called forth by electric stimulation is greatly altered The pulsations are shorter, slower, and more feeble, and the muscular excitability is soon exhausted The local action of cocaine on muscular tissue is very similar to that found in general poisoning

Experiment XX—Gastrocnemius of frog without the nerve is prepared in the usual manner, and is arranged on the muscle-telegraph, and is then connected with the induction coil of the sliding induction apparatus The numbers in the second column represent the number of centimetres that the induction coil was distant from the primary coil when contraction occurred Cocaine in 1 per cent solution was applied to the muscle by means of a camel's-hair pencil

Time	*Centimetres*	*Amt Cocaine*	*Remarks*
12 03	24	1%	
12 05	23		
12 07	18		
12 10	17		
12 11	17	1%	
12 18	16		
12 22	16	1%	Responds feebly, and after two or three contractions responds no more
12 26	15		
12 30	13		Very feeble response to very strong current

The muscle retains the slight excitability, remaining at about this point for some time

Experiment XXI—Preparation and arrangement same as in Ex xx sol cocaine 2 per cent used

Time	*Centimetres*	*Cocaine applied*	*Remarks*
12 35	26		
"	26	2 per cent	
12 38	20		
12 40	18		Quick, short, pulsations
12 44		2 per cent	
12 50	16	2 per cent	
12 55	15		Contractions slow and feeble
1 07	12		Responds very feebly
1 15	5		Scarcely perceptible contractions to very strong current
1 25	No response		

The application of cocaine in substance to muscle produces a gradually decreasing excitability until after twenty or twenty-five minutes there is complete loss of all excitability and there is no response to the strongest interrupted current It requires many hours for a muscle to regain its excitability when it is to any considerable extent destroyed by either the local or the constitutional action of cocaine Here again the local and the general actions of the drug are very similar

In conclusion, then, the action of cocaine on the frog may be summed up as follows

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5 Small doses at first slightly increase the irritability of the sensory nerves, then depress their irritability, and large doses depress from the first

6 Both large and small (not very small) doses have a depressant action on the motor nerves

7 It paralyzes the pneumogastric nerves

8 Doses of moderate size diminish the excitability of the striated muscles

9 The local application of cocaine to any of the more highly constituted organs or tissues causes a temporary cessation of their functional activity

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The results of these experiments would seem to indicate the use of cocaine in tetanus and strychnia poisoning

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BY M SCHUPPERT, M D , OF NEW ORLEANS, LA

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The Lateral and Bilateral Cystotomy (*"La Taille" of the French*) —Some authors of to day recognize only two main methods of *cystotomy*, 1, *the inferior C*, where the membranous and prostatic portion of the urethra, with the neck of the bladder, are cut, and of which they cause two subdivisions, or, *the lateral*, and, *the bilateral C*, and, 2, *the superior C*, whilst the pærineal median and others are simply mentioned Of all the different methods of cystotomy the lateral section is preferred by most surgeons, and most frequently performed since its introduction into England by Cheselden So far it has also given the best results in children previous to puberty The best advice in performing the operation is to keep the point of the knife high up, on account of the high position of the bladder, which, also, by being partially filled with warm water, will descend lower

Concerning the *bilateral operation* we find that the authors are of different opinions With some the body of the prostate and the membranaceous part of the urethra have to be divided, while others want the neck of the bladder included, as *Le Dran* and *Senn Vidal de Cassis* wanted even the neck incised in four different opposite directions, to accomplish which *Colombat* constructed a separate curious knife, which he called "*lithotome quadruble*"

In cases with extremely hard stones too hard for crushing with the common instruments, the bilateral section has been recommended, though others preferred the sectio alta, or even *recto cystotomy* Performing the bilateral operation the arteria transversalis is almost always, and the bulbo urethralis occasionally, cut I have seen the latter happen once, and a terrible bleeding to ensue, which the operating surgeon had the greatest difficulty in arresting The rectum in the cavum ischio-rectali is also considered

liable of being injured, and a fistula remaining here gave formerly a great deal of trouble in its cure With the increase in size of the calculus the danger of laceration of the bladder is said to increase, and mostly so shall such be the case in the presence of an alkaline urine, when phlebitis of the *plexus venosus prostaticus* might be followed by pyæmia It is only by an early and thorough asepsis, or antisepsis, with a proper drainage of the bladder during three or four days, that a thus endangered life may be saved

One of the main objections against the *lateral section* is based upon cutting the vas deferens and vesiculæ siminales of at least one if not both sides, followed by sterility If injuring these parts should really take place, then the danger will certainly be increased by performing the bilateral cut But the opinions upon that point are still divided, notwithstanding the many times that the operation has been performed

Secondary hæmorrhage, if it should happen, will mainly present itself with the patient coming out of the narcosis, when the bandages are removed and free motion of the limbs reestablished A sudden cessation of the flow of urine ought to be taken as an indication of either a second calculus, or coagulated blood Under all circumstances the surgeon must ascertain the real cause and convince himself that no other stone has been left behind

Epicystotomy, *Sectio Alta*, *Cystotomia Supra Pubica* —This method has also been highly recommended, especially in cases of children, on account of the peritoneum standing higher at that early age, than in later years, it being therefore out of the way to be wounded The operation has also been favored in presence of extremely large stones *Astley Cooper* and different other distinguished surgeons considered the operation associated with a great deal of danger, fearing not only of injuring the peritoneum but also of an infiltration of urine into the interstitial pelvic tissues, followed with suppuration, pyæmia, and frequently with death They place this method on an equal footing with the median operation, and a dangerous infiltration which might happen, induces them to doubt its superiority over the lateral section As if not under equal circumstances, as in presence of a decomposed, or, alkaline urine, the danger from infiltration would be as serious in the lateral section as in the sectio alta Since the objections raised against this operation cannot well be maintained, on the contrary, the method under circumstances, as in the presence of extremely large stones, or, their enclosure in diverticles of the bladder, may be desirable, whilst the comparative freedom from danger, if properly executed, will moreover enhance its value, I intend to give here such directions for its practical execution, as will render the method perfectly safe

I omit the initial steps of the operation, as cleaning of bowels, narcosis, position, etc , as sufficiently known The metallic bougie used here ought to have an inner slide, and should not be introduced before a deep narcosis has been obtained, an advice which holds good also in other methods where a bougie or catheter is to enter the bladder The best way to avoid injuring the peritoneum, consists in elevating the bladder by filling it to some extent with warm water, and likewise also the rectum after the narcosis has been effectuated Under an elongation of the urethra the bladder and plica Douglasii are raised, and sufficient room gained between the peritoneum and symphysis ossium pubis for the performance of the operation The plica peritonei hereby retires to the extent of three centimetres from the symphysis, so that a clean cut can be made into the bladder These three centimetres of the bladder are only covered by the fascia transversalis, which is recognizable and characterized by the fat enclosing that membrane even in lean persons, whilst it forms a thick layer in fatty persons Removing that portion of the fascia from the anterior wall of the bladder, instead of incising it, would be committing a great blunder *Rosir* has very properly warned against it

In performing, therefore, the operation of epicystotomy, and to secure success, the following steps have to be strictly and minutely executed After the catheter has been introduced, the bladder is nearly filled with warm phenol water, of 3 per cent , to retain which the catheter ought to be provided with a faucet The bladder in this manner being washed out three times with the phenol water before finally being filled, the catheter is removed and exchanged for the properly constructed bougie, with an inner slide Should the liquid escape at the sides of the instrument, an assistant has to compress the urethra around it The point of the bougie is pushed upwards right above the symphysis ossis pubis towards the anterior wall of the bladder An incision is now made in the linea alba between the pyramidales, in a downward direction, through the abdominal coverings, till the bladder has been reached When the point of the bougie is distinctly felt, two small hooks are inserted into the bladder on both sides of the point of the bougie and held there by assistants The bladder, with its covering fascia, is incised from the point of the bougie in a downward direction till the left index finger of the operator can be introduced, which finger then takes the place of the bougie, which is now retracted, the finger instead hooking up the bladder That finger is not to leave the bladder till the operation has been finished In opening the bladder some of the phenol water will of course escape, but having the bladder still secured by the hooks, a blunt-pointed bistouri is introduced, under the direction of the finger, and the bladder further incised downwards

The stone is now searched for, and when found, detached, and if not too large, it is easily grasped with the forceps, assisted by the finger, and extracted Should the calculus be inclosed in a diverticle, it has to be detached carefully In case of an extremely large calculus, the lithotriptor, or lithoclast of Luer, will be employed to crush the stone In order to obtain a larger opening, it has been proposed to cut the bladder in a transverse direction above the symphysis But herewith the inner pyramidales would be divided, causing a disposition to a subsequent abdominal hernia

In this method we have, therefore, the means of removing the largest as well as the smallest calculi

Time	*Centimetres*	*Cocaine applied*	*Remarks*
12 35	26		
"	26	2 per cent	
12 38	20		
12 40	18		Quick, short, pulsations
12 44		2 per cent	
12 50	16	2 per cent	
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BY M SCHUPPERT, M D, OF NEW ORLEANS, LA

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The Lateral and Bilateral Cystotomy (*"La Taille" of the French*) —Some authors of to day recognize only two main methods of *cystotomy*, 1, *the inferior C*, where the membranous and prostatic portion of the urethra, with the neck of the bladder, are cut, and of which they cause two subdivisions, or, *the lateral*, and, *the bilateral C*, and, 2, *the superior C*, whilst the perineal median and others are simply mentioned Of all the different methods of cystotomy the lateral section is preferred by most surgeons, and most frequently performed since its introduction into England by Cheselden So far it has also given the best results in children previous to puberty The best advice in performing the operation is to keep the point of the knife high up, on account of the high position of the bladder, which, also, by being partially filled with warm water, will descend lower

Concerning the *bilateral operation* we find that the authors are of different opinions With some the body of the prostate and the membranaceous part of the urethra have to be divided, while others want the neck of the bladder included, as *Le Dran* and *Senn Vidal de Cassis* wanted even the neck incised in four different opposite directions, to accomplish which *Colombat* constructed a separate curious knife, which he called "*lithotome quadruble*"

In cases with extremely hard stones too hard for crushing with the common instruments, the bilateral section has been recommended, though others preferred the sectio alta, or even *recto cystotomy* Performing the bilateral operation the arteria transversalis is almost always, and the bulbo urethralis occasionally, cut I have seen the latter happen once, and a terrible bleeding to ensue, which the operating surgeon had the greatest difficulty in arresting The rectum in the cavum ischio-rectali is also considered

liable of being injured, and a fistula remaining here gave formerly a great deal of trouble in its cure With the increase in size of the calculus the danger of laceration of the bladder is said to increase, and mostly so shall such be the case in the presence of an alkaline urine, when phlebitis of the *plexus venosus prostaticus* might be followed by pyæmia It is only by an early and thorough asepsis, or antisepsis, with a proper drainage of the bladder during three or four days, that a thus endangered life may be saved

One of the main objections against the *lateral section* is based upon cutting the vas deferens and vesiculæ siminales of at least one if not both sides, followed by sterility If injuring these parts should really take place, then the danger will certainly be increased by performing the bilateral cut But the opinions upon that point are still divided, notwithstanding the many times that the operation has been performed

Secondary hæmorrhage, if it should happen, will mainly present itself with the patient coming out of the narcosis, when the bandages are removed and free motion of the limbs reestablished A sudden cessation of the flow of urine ought to be taken as an indication of either a second calculus, or coagulated blood Under all circumstances the surgeon must ascertain the real cause and convince himself that no other stone has been left behind

Epicystotomy, Sectio Alta, Cystotomia Supra Pubica —This method has also been highly recommended, especially in cases of children, on account of the peritoneum standing higher at that early age, than in later years, it being therefore out of the way to be wounded The operation has also been favored in presence of extremely large stones *Astley Cooper* and different other distinguished surgeons considered the operation associated with a great deal of danger, fearing not only of injuring the peritoneum but also of an infiltration of urine into the interstitial pelvic tissues, followed with suppuration, pyæmia, and frequently with death They place this method on an equal footing with the median operation, and a dangerous infiltration which might happen, induces them to doubt its superiority over the lateral section As if not under equal circumstances, as in presence of a decomposed, or, alkaline urine, the danger from infiltration would be as serious in the lateral section as in the sectio alta Since the objections raised against this operation cannot well be maintained, on the contrary, the method under circumstances, as in the presence of extremely large stones, or, their enclosure in diverticles of the bladder, may be desirable, whilst the comparative freedom from danger, if properly executed, will moreover enhance its value, I intend to give here such directions for its practical execution, as will render the method perfectly safe

I omit the initial steps of the operation, as cleaning of bowels, narcosis, position, etc , as sufficiently known The metallic bougie used here ought to have an inner slide, and should not be introduced before a deep narcosis has been obtained, an advice which holds good also in other methods where a bougie or catheter is to enter the bladder The best way to avoid injuring the peritoneum, consists in elevating the bladder by filling it to some extent with warm water, and likewise also the rectum after the narcosis has been effectuated Under an elongation of the urethra the bladder and plica Douglasii are raised, and sufficient room gained between the peritoneum and symphysis ossium pubis for the performance of the operation The plica peritonei hereby retires to the extent of three centimetres from the symphysis, so that a clean cut can be made into the bladder These three centimetres of the bladder are only covered by the fascia transversalis, which is recognizable and characterized by the fat enclosing that membrane even in lean persons, whilst it forms a thick layer in fatty persons Removing that portion of the fascia from the anterior wall of the bladder, instead of incising it, would be committing a great blunder *Rosir* has very properly warned against it

In performing, therefore, the operation of epicystotomy, and to secure success, the following steps have to be strictly and minutely executed After the catheter has been introduced, the bladder is nearly filled with warm phenol water, of 3 per cent , to retain which the catheter ought to be provided with a faucet The bladder in this manner being washed out three times with the phenol water before finally being filled, the catheter is removed and exchanged for the properly constructed bougie, with an inner slide Should the liquid escape at the sides of the instrument, an assistant has to compress the urethra around it The point of the bougie is pushed upwards right above the symphysis ossis pubis towards the anterior wall of the bladder An incision is now made in the linea alba between the pyramidales, in a downward direction, through the abdominal coverings, till the bladder has been reached When the point of the bougie is distinctly felt, two small hooks are inserted into the bladder on both sides of the point of the bougie and held there by assistants The bladder, with its covering fascia, is incised from the point of the bougie in a downward direction till the left index finger of the operator can be introduced, which finger then takes the place of the bougie, which is now retracted, the finger instead hooking up the bladder That finger is not to leave the bladder till the operation has been finished In opening the bladder some of the phenol water will of course escape, but having the bladder still secured by the hooks, a blunt-pointed bistouri is introduced, under the direction of the finger, and the bladder further incised downwards

The stone is now searched for, and when found, detached, and if not too large, it is easily grasped with the forceps, assisted by the finger, and extracted Should the calculus be inclosed in a diverticle, it has to be detached carefully In case of an extremely large calculus, the lithotriptor, or lithoclast of Luer, will be employed to crush the stone In order to obtain a larger opening, it has been proposed to cut the bladder in a transverse direction above the symphysis But herewith the inner pyramidales would be divided, causing a disposition to a subsequent abdominal hernia

In this method we have, therefore, the means of removing the largest as well as the smallest calculi with comparatively little difficulty. Nevertheless, in case of a catarrh, or of other complications of the bladder, as a cystitis or pyelonephritis, with a decomposed urine, and where drains have to be applied, the propriety of performing the operation of epicystotomy may well be questioned. The necessity of keeping the bladder empty would expose the patient for some time to the most uncomfortable abdominal position (though such has been recommended).

In the presence of a very extensive middle lobe of the prostate, when *posterior catheterism* should become necessary, or even external urethrotomy be required under such circumstances the method would certainly have no superiority over the pærenial median of Allarton, since the bladder has to be kept in a constant aseptic condition. In uncomplicated cases, with an acid urine, where no interstitial infiltration need be feared, the wound could be farther attended to.

Here it has been recommended to sew up first the bladder, and in applying the sutures very close to each other, to facilitate "a healing by first intention." In thus sewing up the wound, the sutura nodosa with well carbolized silk, ought to be applied, but taking care not to enclose the mucosa in the sutures. If by filling the bladder now with phenol water, it be found water tight, then the abdominal coverings, such as skin, muscles and fascia, may all at once be enclosed in that second row of sutures. But a successful healing of the wound of the bladder by first intention being so difficult to obtain, since it requires a very accurate application of the wound's edges, the latter is better left to heal by granulation, under an exact appliance of an aseptic occlusive dressing. In such a dressing the scrotum and the upper part of the thighs ought to be encompassed, leaving out only the catheter in the urethral canal for injecting the bladder three or four times daily with three per cent. phenol, or, thymol water.

In case of a calculus being enclosed in a diverticle, it is alone the Sauverdin method by which the exhæresis of the stone can be accomplished without any laceration of the bladder. The operation further leaves no incontinence of the urine, neither is a subsequent sterility to be feared. The bleeding is but a minimal one. A hypertrophy of the prostate is irrelevant and in strictures of the urethra, be they spasmodic, or impenetrable, there is certainly next to Allarton's method no better operation recommendable.

There is left for me one more operation belonging to this division, to say a few words about the

Procto Cystotomy.—Cystotomia recto vesicalis.—Of some eighty reported cases up to the year 1881, the mortality has been 1 in 5.3. If more were required to assign that method its proper place in surgical practice, it might be mentioned that the ever practical Malgaigne, in the latest edition of his "Operative Medicine," has totally relegated that operation from its contents. That ought to be sufficient for its condemnation, nevertheless, let us see if something could not be said in its favor, the more so since it was once held in especial appreciation by that distinguished Italian surgeon, Vacca Berlinghieri, who favored it on account of its easy execution and being an almost bloodless operation. My friend L. Bauer, of St. Louis, formerly of Brooklyn, N. Y., who performed that operation in 1859 successfully and for the first time, as he said, that the operation had been performed in this country, also claimed for it a superiority over all other methods. Bauer was no doubt led to that opinion like Berlinghieri, by its easy execution and successful issue, but such are not the only, nor the most important factors, in assigning a method its proper place in surgical practice.

If we distribute the rectum according to the anatomist Hyrtl, into three sections, then the second or middle section will extend backward alongside the os coccygis and sacrum, and in front from the prostate till to the plica peritonei, or, Douglasii. Its length is variable. With an empty bladder it measures from 5 to 7 ctm. (2"–2½"). If the bladder is extended by being filled with water, it takes hold of the plica Douglasii, or, that place where the peritoneum coming from over the fundus of the bladder is attached to the rectum. It will be moved somewhat higher up and correspond with the concavity of the sacrum. The total length of that section in its anterior portion is in contact with the fundus of the bladder, while at its sides the seminal vessels are met with. The easy injury of the latter by the recto vesical cut and perhaps a deep position of the plica Douglasii, whereby the peritoneum may be injured, was the cause that one of the former defenders of that method, Sanson, again relinquished it. It is moreover an undeniable fact, that in elderly people the peritoneal duplicature of the rectum descends further down than commonly, and that in large stones the incision, if extended too far upwards, may come in contact with that membrane and even open the abdominal cavity, to say nothing of cutting the seminal vessels and causing sterility. Another salient point in its disfavor, consists in the inability of the surgeon to apply a proper aseptic dressing, nor is it always in his power to protect the wound against a sudden descent of fœcal matter. A remaining recto-vesical fistule, which has also been mentioned among the objections, has to day lost its importance, since its cure, or failure of being cured, depends exclusively upon the skill and dexterity of the surgeon. Regarding the material used here for sutures, it does not matter whether silver, annealed iron wire, or carbolized silk is used. It was a mistake that I, with many others in this country once committed, to think that metal wire possessed a special virtue. It was an error, since properly prepared carbolized silk will serve the same purpose as wire, and "the new and lasting impulse in lithotomy" which Bauer ventured to predict upon the potency of silver wire sutures has not only not been verified, but they were not even able to save the operation in question from being thrown into the waste basket. Even in modifying the operation, by placing the highest point of the incision not further up in the rectum than about 2½–3 ctm., altering thereby the cystotomy into an urethrotomy, securing the peritoneum against any possible injuries, even then would the impossibility of applying an aseptic dressing be sufficient to doom the method. In complicated cases in the presence of a cystitis, of an alkaline, or decomposed urine, when the wound must remain open and a healing of it per primam could not be thought of, the constant exposure of the wound to being contaminated with fœcal matter, not to speak, moreover, of the interstitial infiltration of the urine and its life endangering consequences, would offer sufficient reasons to relinquish the operation, even in its modified form.

Calculus in the Female Bladder.—Calculi in the female bladder are also of renal as well as of vesical origin. The interior of some of these stones is either oxalates or urates, while its greater portion, the covering, consists of phosphates. It also happens that the nucleus may be a foreign body, such as a hairpin, a straw, etc., which in most instances found their way into the bladder through the urethra, as in children playing with such substances. In one case that of a young lady, a hairpin which had been swallowed accidentally, nine years previously, and which finally became located in the bladder, and in part incrustated, was extracted with a dressing forceps.

The singular incident that calculi in females have been and are still occasionally overlooked, may find its explanation in a careless examination, but also by the fact that uterine disorders frequently accompany an excitability of the bladder, and it thus happens that such calculi are at first taken and treated for uterine disorders. In all such obscure cases a thorough examination of the bladder ought never to be overlooked, and this is best executed by the finger of one hand in the rectum, whilst the other hand carries the bougie, or presses deep into the abdominal coverings above the symphysis pubis.

The removal of a calculus from the female bladder, if not executed through the artificially, gradually dilated urethra, either entire or after having been crushed by lithotriptic instruments, is best accomplished in cutting through the anterior vesico-vaginal partition wall, a method formerly much feared on account of a remaining fistula, for a long time considered one of the approbria in surgery, and, singular to say, from the mere failure of a properly constructed speculum by which the parts could be made more accessible to the operator. And what is still more singular, when that speculum had been finally discovered, in Germany, and its description was accompanied by six successive cures of vesico vaginal fistules by the German Metzler, it was overlooked till it came back from the new world to the land of its invention under another name, and encumbered with some paradoxical paraphernalia fully documental of its real origin. The silver-wire sutures, divested at a later date of their imaginary attributes, were replaced by carbolized silk, without altering the success of the operations. Vesico-vaginal fistulas are to day no longer feared, and their cure may be predicted with an absolute certainty.

In order to examine the interior of the bladder with the finger, in case a caculus is enclosed in a diverticle of the bladder, in "*a vessie a colones,*" the late Professor P. Simon, of Heidelberg, Germany, invented a set of specula made of hard rubber, and secured with a conical obturator or mandrin. These specula, of seven different sizes, from nine to nineteen mm. in diameter, he introduced one after the other, and became thus enabled to dilate the urethra to a lumen of two centimeters, after having incised previously the mucous membrane of the meatus urinarius by slight cuts of one-quarter to one-half centimeter deep, in four opposite directions, to avoid its laceration. Notwithstanding these forced dilatations at so short intervals, Simon never saw either a paralysis or an enuresis follow, the urine being always retained. In this manner a palpation, or illumination of the interior of the bladder could be executed, not merely in case of stone, but also in other diseases, like hypertrophy or tumors of the bladder. As a matter of course, these dilatations must only be made when the patient is in deep narcosis, to avoid the pain, as well as the spasmodic contractions of the sphincter vesicæ and the muscular fibres of the urethra.

I will here add a chapter of great importance to the surgeon, not merely on account of its intrinsic value, its relation to the parts which hereafter come into question, but also on account of the many existing errors committed by diverse authors. It is the *topographical anatomy of the pelvis minor.*

The existing errors and confusions in the description of these parts of the human body, comprising the pærineal region, and the interest every surgeon must feel for a correct information, induces me to write this chapter, and the more so since I have dissected these parts more than once, and in part as specimens for the anatomical museum of the University of Marburg. Seldom did I meet with a truer description than that given by the great anatomist, Hyrtl.

Well says the Nestor of anatomists: "The pærineum in the pen of authors has become a true Proteus, producing a mess which it is difficult to unravel." Considered externally, we find the pærineum limited by the root of the scrotum, the anus and the tubera ischéi, or those furrows caused by the thighs. The arcus ossium pubis is the skeleton of this region. The pærineum has three aponeuroses, or fasciæ pærinei. Its upper aponeurosis is situated underneath the subcutaneous cellular tissue, and ought to be named *fascia pærinei superficialis.* It is nowhere attached to the skeleton, though Quain, says Hyrtl, inserts it at the arcus ossium pubis. This aponeurosis comprises merely some indifferent blood-vessels and nerves, and is without any surgical importance.

The next or middle aponeurosis is the *fascia pærinei propria.* It is attached posteriorly to the levator-ani, os coccygis, and the tubera ischei, anteriorly to the arcus ossium pubis. Being strongest in its forepart, it is perforated by the pars membranacea urethræ of 20 to 25 mm. in length, behind it is perforated by the rectum.

The lower aponeurosis, which is commonly named the *fascia pelvis*, forms the basis of the pelvis minor, and is perforated by the organs passing through the pelvis. It is united with the levator ani. The anterior portion surrounds the neck of the bladder and prostate, as the ligamentum pubo-vesicale and prostaticum, originating at the posterior part of the symphysis pubis   Another portion of it, attached to the tubera ischei, forms the ligamentum ischio-prostaticum

The last one, coming from the sides of the smaller pelvis, is the largest and most complicated one, and is known as *processus falciformis*   It has two layers, the inferior, which goes to the bladder and to the anterior portion of the rectum, and is called fascia recto-vesicalis   The strongest portion of this aponeurosis is adherent to the prostate and to the fundamentum vesicæ   The superior layer is covered by the peritoneum, which is connected with it by a loose cellular tissue   Above this aponeurosis the cystotome ought never to be entered   In cutting into the raphe of the pærineum, in order to open the membranous portion of the urethra, we will have to divide the anatomical layers in the following order   *cutis, subcutaneous cellular tissue, panniculus adiposus, fascia pærinei superficialis, plexus venosus* (inferior hemorrhoidal veins), *pars membranacea*, or, *isthmus urethræ, surrounded by Guthrie's and Wilson's muscles* (*musculi pubo urethrales*)

So much for this concise classical description of Hyrtl, of the correct anatomy of those parts of so important an interest to the practical surgeon

The Urethra —In the previous chapters it occasionally happened that further explanation of a subject was promised subsequently   If under this and the following headings, therefore, some repetitions should occur, I hope they will be excused as unavoidable

A very important element in the nature of the urethra is its dilatation, its expansion   A healthy urethra, as stated by Dr Otis, one of the distinguished American surgeons (and also present at the International Medical Congress) has stated the caliber of the urethra to be about 32 mm , whilst its meatus is given to be 24 mm in circumference   Bigelow employed usually a catheter of 29 mm (18 mm engl), which means the caliber of a well-extended urethra   Otis further stated that if the flaccid penis, *i e* , its pendulous portion measured 75 mm (= 3" engl) in circumference, the urethra would have a capacity of 32 mm , and so on , so that 6¼ mm (or ¼") increase of circumference of the penis at or about the middle of the pendulous portion, would indicate an increase in size of the urethra of 2 mm   The range of the normal urethra, as demonstrated by measurements (done by Otis with his urethrometer), in several thousand cases has been given from 28 to 45 mm in circumference, while the normal caliber of the urethra, as claimed by surgeons of all parts of the world, did not formerly exceed 21 mm in circumference   In England and America, till Otis undertook these measurements with his urethrometer, the caliber of the urethra was accepted to be from 17 to 18 mm , and in France 21 mm   In one hundred carefully measured cases Otis received, in the average, 31 84 mm when more or less strictures had been present, and 32 93 mm in urethra supposed healthy   It will thus be seen that much larger instruments may be used in passing them through the urethra, as in lithotripsy, without fear of a rupture of its mucous membrane, than has been heretofore supposed

Otis has given comparative normal measurements, but they, of course, do not indicate the maximum of dilatation which the urethra may undergo under certain circumstances, as for instance, under a gradual extending power and when a further portion of the urethra has been incised near the opening of that organ through which an entrance into the bladder is forced, or through which a stone is to be removed   That this is the main and most important question in performing the pærineal median operation of Allarton, or urethro-lithotripsy is self-evident   From my statements and measurements given in the case operated upon with Allarton's method of the stone, including the forceps, which both together had passed through that part of the urethra from the neck of the bladder to the beginning of the incision, without causing the least laceration, the circumference of the extended urethra measured 88 mm , instead of the circumference of a normal urethra after Otis from 28 to 45 mm , or of a hundred carefully measured cases in the average from 31 84 to 32 95 mm in more or less healthy urethras   The extension of the urethra in my case, large as it appears to be, certainly does not prove the utmost dilatation of that organ, since not even a sign of blood became visible on the finger, introduced after the extraction of the calculus

The above-mentioned measurements of Otis were given by him at the International Congress, and from what I have stated here, we can understand the success of Bigelow's method with his large lithotriptor and evacuating sound

Previous to beginning the operation of external urethrotomy it is necessary to make a thorough examination of the urethra, as well as of the instruments   About 8–10½ ctm or 3–4 inches from the meatus urinarius, what Otis calls the peno scrotal angle (the beginning of the pars pendula penis), we meet frequently, after Otis, small bands   These bands, as well as all other localized constrictions of the urethra, from whatever cause, ought to be removed, either by a gradual dilatation, or internal cutting, so the instruments shall not be clogged, says Otis   The meatus, when much narrower than the balance of the urethra, has first to be widened by small cuts through the mucous membrane, as already mentioned   But all of these precautions and actions are of value only in a subsequent lithotriptic operation, whilst they are indifferent to either urethrotomy, or urethro-lithotripsy with an incision beyond those bands or localized constrictions

Construction of the Catheter —I consider it a fit place to call attention here to a new form of catheter which the late Prof Hueter recommended as based upon the anatomical structure of the urethra

Hueter, by whose recent and quite unexpected death surgery has suffered a heavy and irreparable loss at our time, called attention in his monumental work on surgery (one of the best if not *the* best work on surgery at present in existence, and with which he has set himself a most brilliant and imperishable epitaph), I say Hueter called attention to the efficiency of Stearn's instrument for the dilatation of strictures of the urethra (Stearn's dilator is an American invention) The fact that he could pass that instrument, consisting, as known, of two movable flattened wires, through strictures through which he could not pass a round instrument of the form of our common metallic bougies or catheters, and of the same diameter, induced Hueter next to have given his catheters a similar elliptical form, and he had the satisfaction to experience the great benefit thus derived from that modification But Hueter soon after also discovered the theoretical reason for this serviceable alteration When the urethra of a dead subject is filled from out of the bladder with a paste of gypsum, and after the paste has hardened and the soft parts have decayed, a proper impression is obtained of the form of the urethral tract, the normal anatomical construction of the urethra, thus obtained, of the part corresponding to the glans penis presents a perpendicular cut, while the balance from the fossa navicularis backwards including the pars cavernosa, membranacea and bulbosa, are transformed into a horizontal split, in which the upper urethral wall lies attached in close contact to the lower one The middle part of the urethra, which is widest, will permit the passage of a common round bougie as well as of one flattened or oval, but towards the pars membranacea the channel obtains more the form of a reclining oval

In the handbook of Billroth and Pitha (Bd III 2d div , 8 part, page 41) Socin has given the urethral split in the form of an inverted T (⊥) Hueter's oval male catheters have two eyes near the point, one at the convex, the other on the concave side of the curvature The entrance to the channel of the catheter is the same as on the common round one That the new form is easier of introduction and causes less irritation has been observed by all persons who have tried both forms upon themselves The great facility and disencumbrance of introduction was surprising to all of the old habitués using the catheter "But there is even a time for the specialist, when the urethræ of the patients have to pay for the apprenticeship," says Hueter "The number of these sufferers would certainly be diminished with the use of the oval catheter " Even in the swelling of the prostate, which is the most fruitful cause for a punctio vesicæ in retention of urine, this form of the catheter might be of great service in reducing the mortality from that operation, which according to a careful collection has been given at 13 per cent Hueter asserts that in such a swelling of the prostate, his oval catheter would enter easily, when the round one would not enter at all, displacing the middle lobe of the gland to make room for the instrument to enter the bladder, by adapting itself better to the small horizontal split, thereby preventing its point from entering the tissue of the gland and causing "false passages "

During 32 years of professional practice in this city, I have been obliged but twice to perform puncture of the bladder, among dozens of cases of retention of urine, from an extensive increase of the middle lobe of the prostate Both cases recovered, though they happened in the beginning of my practice and when no aseptic treatment was thought of I was also present when a surgeon, by pushing the trocar through the rectum, not only failed to enter the bladder, but, singular to say, postponed a second attempt for the next day (!), when he had the misfortune of meeting with a corpse The man, colored, about 55 years old, died during the night of violent peritonitis At a later period, after I had become acquainted with the wonderful efficiency of the galvanic current in the treatment of strictures and obstructions caused by an hypertrophied prostate, it never happened to me again to have recourse to the forcible and rude means of the use of the trocar in similar conditions, but always succeeded with patience and the use of the proper pole of the battery attached to the bougie or catheter, to enter the bladder

[TO BE CONTINUED]

DELIRIUM TREMENS

BY JAMES T WHITTAKER, A M , M D

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A Clinical Lecture Delivered at the Good Samaritan Hospital, Cincinnati, December 1 1884

[*Reported by James M French, M D , Assistant to the Chair*]

GENTLEMEN—The resident physician, Dr Carter, will read us the history of the case

"*History*—Thomas D , æt 48, a laborer, has been a hard drinker for twenty-seven years For a period of five or six years just preceding the present year, he abstained from drink, but during the year just past he has indulged very freeely He has had two attacks of delirium tremens—the first in 1861, the second in 1865 During the first attack he says that he imagined he was lying in a bed of serpents, and that the room seemed to be filled with demons of the most fantastic shapes At an unguarded moment he ran from the house, pursued, as he imagined, by a huge snake that seemed to crawl through his clothing, and was endowed with articulate speech The patient was admitted two days ago, and stated that he had had an attack the previous night In the attack his room seemed to be filled with various animals, as dogs, cats, rats, birds and insects, which sported about and seemed to get into his bed, and crawled about his person Yet he was able to cause them to disappear by kicking them off He also saw figures of gigantic men, who appeared about to fall upon him He heard, too, numerous voices reproaching him, so that he was unable to sleep His mouth, he thought, was filled with grass, which he could not get out, and with the grass he thought he was trying to spit out devils During the day of his admission he was pretty quiet, and he rested pretty well the following night Yesterday, however, he could not be restrained, but wandered about the ward in an indifferent, abstracted mood, appearing unconscious of his movements So marked was this that while he was standing before the fire the sheet in which he was wrapped became ignited, and was torn from him without arousing his attention. After this accident he was secured in bed. Toward evening he fell asleep, and rested quietly all night and the greater part of this morning. His appetite has been ravenous, almost insatiable during the course of his illness. At present he is fully conscious of all his actions and surroundings."

I asked the resident physician in preparing the history that he has just read to record just what the patient said, and he has given us a very succinct account of the delusions which are common in these cases. I wish you could have seen the patient in the height of the attack, for you would then have seen a picture that you would never have forgotten. Now he lies quiescent, and is not affected even with tremor; there is no tremor of the hand or of the tongue. Nevertheless, I think it is perfectly plain to you that we have had to deal with a case of delirium tremens. It is generally pretty easy to recognize one of these cases, but every now and then a grievous mistake is made. Not infrequently an individual is picked up on the street, and perhaps carried to the station-house, thought to be suffering from delirium tremens, and it turns out afterwards that he has had a sunstroke, is apoplectic or uræmic, or has received a blow upon the head. Only a few years ago a man was found propped up in a door way in this city, like the hunchback in the story. He was carried to the station, and died in a short time. When the body was examined the next morning, it was found that the individual had been shot through the brain.

Then a man may have delirium tremens that is not due to the excessive use of alcohol. A man may show delirium and a tremulousness that is characteristic of the disease before us, in any acute infection, especially in typhoid fever and in septicæmia. Neither does alcohol give every man delirium tremens, or the affection would be a great deal more common than it is. It comes on, as a rule, after or in the height of a debauch. This man has been a hard drinker for a great many years, but this is only the third attack he has had. I have no doubt that he has been found in a condition of acute alcoholic prostration a number of times, but that is a quite different condition from delirium tremens. The effect which we here observe is produced by the direct action of the alcohol on the brain. In all cases, in fact, alcohol expends its force upon the brain; first upon the great brain, then upon the centres of motion at the base, then upon the cerebellum. The centres of respiration are last but most profoundly affected, and when a man dies from alcoholic poisoning, he dies of apnœa. He literally chokes to death. We see this from the cyanosis, from the suffusion of the face and surface. Often we are called upon to decide whether a man has acute alcoholic coma, uræmic or apoplectic coma, or is suffering from an injury to the brain. So it behooves you well to know the signs of delirium tremens.

Perhaps you know that it is a disease that is not so common in some countries as in others. It is most common in cold climates, as in Norway, Sweden and Denmark, because in these northern countries there is a constant craving for stimulating drink, not felt so much in warmer climates. In cold climates the tissues are consumed more quickly, and this accounts for the constant craving for alcohol. In warm climates, where wine and beer flow like milk and honey in the Promised Land, you will scarcely meet a case of delirium tremens. In these drinks the alcohol is in much less amount. Brandy has 60 and wine and beer but 2 to 6 per cent. of alcohol.

Thomas Sutton, an English physician, was the first to give a distinct description of this disease. He taught us that there are three characteristic symptoms to be looked for, namely: delirium, tremor and insomnia. So it is sometimes said that delirium tremens is a disease which stands upon a tripod. There should be added a fourth symptom, a symptom which, however, is rather a negative than a positive sign. Delirium tremens is not accompanied by fever. When we find all these four symptoms present, delirium, tremor, insomnia and apyrexia we can have no doubt of the character of the case.

For the most part an individual who is attacked with delirium tremens has it come upon him suddenly. Not infrequently it is prefaced by or associated with nausea, vomiting, anorexia, etc., then the individual becomes delirious. You heard all the phenomena of the delirium in the history read by the resident physician. The individual sees curious objects, and all kinds of animals, strange to zoology and comparative anatomy, serpents and dragons, such as might be read of in the "Arabian Nights" or fairy tales. He tells us now that he was in his earlier attacks, pursued by snakes. I doubt very much whether he really saw snakes at all when he was in the delirium. It is more usual for these individuals to see insects, small animals as mice, rats, beetles and bugs, that crawl all about them, fill the room and for the matter of that all inter-planetary space. Or they may see objects about them transformed into objects of horror. The bed-posts become transformed into huge dragons, and a chair is changed into a demon. More especially the patient fears his fellows. Assassins, he imagines, are standing at his door or crouching under his bed waiting to kill him. He jumps out of bed and in his alarm, perhaps, escapes from the house. I have known a physician going through a ward with a stethoscope in his hand, beaming with benignity, to be mistaken by one of these patients, for a robber or a murderer, the stethoscope mistaken for a weapon, and the patient jump from the bed and run for his life. These individuals are not permitted to rest by reason of their perverted fancies. They are just about to fall into a sleep when they are awakened suddenly with a start, a shudder, or a shriek at the demons which have been meanwhile conjured up. It is not that the patient wants to injure any one, it is fear that characterizes his attack. The physician and attendants are mistaken by him for assassins, and from these he desires to escape. It is not, as a rule, I say, a maniacal onslaught that they make, but everything with them is the attempt to escape from danger. This is the characteristic of delirium tremens, horror and fright and fear. You see the expression of terror in the dilated pupil, in the general physiognomy that is unmistakable.

After or with the stage of delirium, comes the tremor; tremor of the hands, of the tongue, of the jaws, and agitation of the extremities. The tremor of the hands is more marked than in paralysis agitans. It is a tremor, too, that is manifested when the individual is quiescent. This man can now hold his extended hand quiet as you see, but even for a long time after the individual has recovered, volitional movements are marked by feebleness and tremor. The tremor also affects the tongue, so that the individual has difficulty in speaking; he disarticulates his words. You ask him to put out his tongue, and it is with difficulty that he obeys you. Tremor is, in in fact, a symptom so prominent and so persistent that it has baptized the disease with its name.

Another of the more important symptoms is sleeplessness. The individual would fall into sleep from exhaustion, were it not for the fact that he is constantly aroused by his fears. If he falls asleep, he awakes, as I have said, with a start or a shudder. Again he falls asleep, but only to be again awakened with a start, and to see the room filled with objects of terror. To what extent this insomnia destroys the rest of the patient, you can learn from the enormous doses of hypnotics we have to administer in order to give him rest. We often have to give doses that compel us to stand by the bed-side and watch the patient until the action of the remedy has to some extent worn away. Thus we sometimes incur the superadded danger of narcosis in our attempt to give the patient sleep.

You take the temperature in a doubtful case and you find that it is normal, or if you take it as the full action of the alcohol has expended itself, you may find it slightly below the normal. You know that alcohol reduces temperature. We give it now in preference to quinine in septic diseases, because it reduces the temperature absolutely. Typhoid fever shows us a fever during the stage of delirium, and this you would also find in the history of septicæmia. There might be times in the course of a septicæmia when the temperature would be normal or subnormal, but as a rule you would find it elevated. You would also have in the history, the statement that the patient had had a chill or a succession of chills, so that you would have no difficulty in the diagnosis. You can not produce alcoholic intoxication in a case of sepsis. When alcoholism supervenes the disease, as a rule, is done. There are other points of great value in the diagnosis. In the first place the gastric distress sometimes enables you to make a diagnosis at once. You find that the individual's clothes are soiled, or the ground near where he lies is covered with vomited matter. You investigate the vomited matter; don't be afraid to put your nose down into the vicinity of it, and you detect the odor of alcohol, or rather of the etherial oils that accompany the alcohol. You put your head down close to the individual and you discover the odor of alcohol in his breath.

Another thing. These patients are brought by alcohol into a state of anæsthesia. Alcohol produces anæsthesia. In the days before the use of chloroform and ether, the surgeons, when about to operate, gave the patient a drink of whisky, and even now, in trivial operations, where it is not considered necessary to administer an anæsthetic, we give the patient a glass of good wine or whisky, and a kind of anæsthesia is produced. In delirium tremens this anæsthesia is plain enough. The patient who has jumped from a window to the ground gets up and tries to walk away with a cracked pelvis or a broken limb, unconscious of any injury.

We have now had signs sufficient in a diagnostic way to distinguish this disease from others that may simulate it. The delirium, the tremor, the gastric distress, the insomnia, the absence of fever and the anæsthesia distinguish it enough. Generally, however, the individual comes to you with the history of delirium tremens. He has, as a rule, been a continual drinker. The attack you see is not the first.

It is only a certain percentage of persons, as I have said, that have delirium tremens; and these persons are often victims of other neuroses. It is surprising how often epilepsy is associated with this disease. Westphal has shown us that 30 per cent. of these cases are epileptic before the disease comes on, and 30 per cent. are seized with epilepsy after it.

But there is no rule without exceptions. I have intimated to you that delirium tremens is a disease without fever. Now, fever is sometimes associated with it; but when this occurs the elevation of temperature does not belong to the delirium tremens proper; the fever is due to complications that are accompanied with fever. Perhaps the most common complication of delirium tremens is pneumonia. This is due, to a great extent, to the exposure to which drunkards are subjected. The individual, in many cases, has fallen into a gutter, and has got wet, and a pneumonia supervenes. The pneumonia of drunkards is frequently a double pneumonia, and there is no pneumonia that is so fatal as a pneumonia during alcoholism—not only because it is so often double, but because the man's bad habits have broken him down, and destroyed his powers of resistance to disease. Next in frequency to a pneumonia is a pleurisy; but a pleurisy runs, as a rule, a much more favorable course. What you will learn to watch for with much greater interest is a meningitis. This is the complication that makes the individual the victim of maniacal delirium. You would observe, in a case of this kind, fever, and a contracted condition of the pupils, instead of the dilatation that is usual in these cases. Above all things you would lay stress upon the fever. Now, because a man has a maniacal delirium it does not imply that he has a meningitis, for an individual generally has maniacal disturbances in the excitement of his fear some time in the course of the disease. It is occasionally very difficult to restrain these cases of delirium. In the hospitals where they treat a great many such cases they have padded rooms, where the individual can pitch around as much as he likes without injuring himself; but here we have to use restraint, and sometimes it is necessary to put on the straight jacket, on account of extreme violence.

Westphal has shown that six per cent of these cases attempt suicide, but homicide is almost unknown. When it does occur, it is accidental, in the effort to escape. This man, we are told, wandered around the ward until he set himself on fire at the grate, and so profound was the anæsthesia that he paid no attention to the accident at all.

Suppose, now, that you should see an individual lying in the street in an acute state of intoxication, or coma, and it should become a question to what the coma was due, how would you decide? Well, in an attack of opium poisoning, you would notice the pupils contracted down sometimes to a pin-point, but you must remember that when the stage of asphyxia comes on in opium, they sometimes dilate. Next you would have the respiration reduced probably to only four or six per minute. This slow respiration is characteristic of both affections, because both poisons affect the medulla, but it is more marked when due to opium. Thus, with the pulse, pupils and respiration, you would draw a line between alcohol and opium, especially if you could get anything of the history of the case, or if you could detect an odor of either drug upon the individual. If you suspected uremia, you would at once draw some urine from the bladder and examine it for albumen. But many drunkards have albuminuria, and in such a case you could not distinguish the affection. As a rule, however, this complication does not cause any difficulty, and you could eliminate one or the other. Look for the dropsy of Bright's disease, especially under the eyes. As for injuries about the head, you would have to examine the head, of course. Most mistakes are made where the physician has taken it for granted that the case is one of alcoholic intoxication without examining properly. I know of nothing more humiliating to the physician than to make a mistake like this.

What will you do for a case of delirium tremens? I have already intimated to you that it is not, as a rule, a dangerous disease. Most cases recover. When they die, they die of complications, or those slow changes that are brought about by the continued ingestion of alcohol, namely, the destructive inflammation of the connective tissue of the brain, giving rise to progressive paralysis of the insane, or a chronic inflammation of the connective tissue of the liver, giving rise to cirrhosis. I have told you that it is necessary to use some restraint in these cases. Now you should use just enough force to keep the patient quiet, and not any more. If you have attendants enough, it is only necessary for them to watch beside the bed and to keep him from leaving it. It is more a matter of vigilance than of force. But that cannot be done, as a rule, because these are generally men who have run through with their fortunes and cannot hire attendants enough.

We have next to discuss remedial agents. The best remedy is chloral, but to have success, we must give it in large doses. It is better to give it in one large dose, as forty grains at a time, than in repeated small doses. Chloral is preferred to other remedies because it does not interfere with digestion and does not leave any traces behind. But then there are certain contra-indications to its use. You could not give an old drinker chloral; the alcohol has already produced changes in the heart that you must watch. The heart has become fatty, and the aorta atheromatous. You detect these changes in the pulse or by putting the ear down over the heart. Many and many a drinker has been pushed off with a dose of chloral. What then, in a case in which you could not give chloral, would be the substitutes? The best substitute is opium. Opium was looked upon as the sheet-anchor in these cases until the discovery of chloral. You shall give it in the form of morphia in the dose of quarter or half a grain under the skin that it be not rejected, and watch the effects. The individual as a rule falls of into a sound sleep, but you would hesitate to give the remedy too frequently. You may have to repeat the dose once or twice until the patient gets a grain or more, but you would watch the effect closely; you would watch to see if the pupils were contracted. If dangerous symptoms supervened, you would have to sit down beside the bed and keep the individual awake. You do not have to make him walk about to do that, but simply sit beside him and occasionally pinch his ear or slap his face or especially call him by name; usually this is enough. While you watch the patient count his respirations. As a rule you would not venture to leave him until his respirations were as frequent at least as ten per minute. Do not forget how boldly you may use atropia, in the dose of half a grain hypodermically, in a desperate case. Now, in a case where there was some sign of fatty degeneration of the heart, as there is in the case before us, you would certainly put the patient under digitalis. Grade your dose according to the condition of the patient; sometimes you will have to give as high as a tablespoonful of the infusion every two hours. Then there is a remedy which you would have the patient use as a drink, and it is in a mild case almost a specific, namely, coffee; you would have the individual drink strong coffee. Let him drink it without any milk, because the tannic acid of the coffee coagulates the albumen of the milk, and renders it less easily absorbed; or you might give the active principle of coffee, caffeine.

Binz found that coffee was an absolute antidote to alcohol, and that dogs saturated with caffeine could hardly be intoxicated with alcohol. So you would use coffee or caffeine, and you would recover your patient, as we have done this man within the short space of twenty four hours. Lastly, if you choose, when you are all through you may lay aside the role of physician and assume that of the preacher. You can generally do more good than the temperance lecturers. You can call attention to the harm that alcohol does to his brain and his liver. These are the chief organs to suffer; but you are not hence to infer the alcohol is carried irregularly over the body, it is carried uniformly everywhere—absorbed always by the veins—never by the lymph vessels. Tell your patient that alcohol is one of those poisons that leave a permanent effect. Opium does not, and nicotine does not. A man may suffer the profoundest poisoning with opium and nicotine, and yet recover entirely from it A man may take either for years, but the moment he stops the poison is eliminated But it is not so with alcohol Alcohol produces the profoundest lesions in the brain and other organs, diseases that are called progressive These things, I say, you can depict to the patient, and sometimes you can rescue him from the habit, but not as a rule, for he has become addicted to it for life, and is not capable of breaking it off, because the force of his will is broken, too Most of the inebriate asylums of the country are failures The individual can be sent to an asylum, and so long as there, kept under observation, he will do very well, but the moment he is out from observation, he relapses, because, as I have said, the regular drinker has lost his will We do not expect to accomplish much by that method, or by our or other sermons, but we expect to accomplish more by good laws—by license laws, perhaps—by some means that will put the abundance of liquor beyond the reach of the majority of men It was found in Russia that the amount of crime was in exact ratio to the tax that was put upon liquor In the countries where people drink the milder wines, we do not find any of these diseases So, if we can do no more, we may impress upon the patient the wisdom of taking only the lighter drinks

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PREMATURE DETACHMENT OF THE PLACENTA DURING LABOR AS A PROBABLE CAUSE OF STILL BIRTH WHEN NO OTHER CAUSES CAN BE ASSIGNED

BY H LANDIS GETZ, M D MARSHALTOWN, IA

For some years past we have entertained the view that the premature detachment of the placenta in otherwise normal labors, was occasionally the cause direct of "still birth," or the cause of the enfeebled condition of the child at birth, where only the most prompt and efficient measures which can be brought into practice by the accoucheur, are the means of establishing respiration, a perfect circulation, and consequently the life of the child, which but for prompt measures must otherwise have perished We believe that a child born where the placenta remains attached to the womb until the child is expelled from the mother never requires any assistance to promote or establish respiration, and that where such assistance is necessary there has been either a partial or complete *premature detachment* of the placenta, for a shorter or longer time prior to the expulsion of the child from the mother, and the circulation in the cord will be enfeebled or have entirely ceased in proportion to the length of time the partial or complete placenta detachment may have existed Our attention has been recently called to this subject in quite a decided manner, through the occurrence of two cases, which were of a very striking nature

CASE 1 A primipara, second stage of labor, lasted about two hours, labor normal in every particular, child well developed, heart action very feeble, no pulsation in cord perceptible, no effort at respiration, had hand upon abdomen over womb when child was expelled from mother, held hand in same position until removed to cut the cord, which was done within two minutes after the delivery of the child, and there was not the slightest contraction of the womb from the time of the pain which expelled the child to the time of cutting the cord, and when the cord was cut there seemed to be no necessity for a ligature, inasmuch as there was not the slightest hæmorrhage, prompt measures restored the child, which has since done well, and is now several weeks old and has not shown an unfavorable symptom The placenta was expelled by the first contraction of the womb after the expulsion of the child, about five minutes elapsing between the expulsion of child and placenta

CASE 2 A multipara, eighth pregnancy, labors previous all normal, present labor normal, except that the vertex caught upon the symphysis in such a manner as required the application of instruments to dislodge it, which was easily accomplished, conditions of child, etc , almost identical with case 1, above described, except that at least fifteen minutes elapsed before there was any voluntary effort at respiration, and at least half an hour before the respiration assumed any degree of certainty or regularity This child also was well developed, and when last seen was to all appearances well in every particular These cases to us, together with former observations of a similar nature, would, it seems to us, go far toward the establishment of the belief and fact of the possibility of the occurrence of the accident, and its effects as herein suggested If our theory is correct, then arises the question What are the causes of this premature placental detachment, or how can it happen? Several ideas suggest themselves to us

1 Where there is very large quantity of liquor amnii, and where the head for a time completely obliterates the outlet, where the space between the child and the wall of the womb is greater than the thickness of the placenta, this space filled with liquor amnii, and now as the forcible contractions of the womb come on the placenta having the liquor amnii as a bearing instead of the firm body of the child, is driven into the fluid, and torn from its attachments

2 Where the head is locked in the pelvis, and does not recede as each uterine contraction ceases, the relaxation of the uterine tissues may be so great as to leave a material space between the walls of the womb and the body of the child, so that when the womb again forcibly and suddenly contracts, and the bearing for the placenta is not immediately reached, the latter is in the meantime partially or completely severed from its attachments

3 Where a condition (owing to certain position or relation of body of child to placenta) exists, for instance, if the lower extremities doubled upon the body of the child should happen to be a few inches apart, the placenta happens to be attached immediately opposite this gap, the womb contracts, the bearing to the placenta is not exactly equable, and, as a consequence, there is a partial detachment of placenta

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at the point where there is practically no resistance or bearing

What can be done to avoid these accidents, if it is possible for them to occur—and our theories in the main are correct—we confess we have little to suggest, the principal remedy perhaps being in prompt delivery in all cases where the womb is fully dilated and there is nothing to contraindicate it by the pelvic and external soft parts When instruments are used, the pærineum should always be given ample time for yielding, so that it may not be unnecessarily lacerated

Nov 24, 1884

MEDICAL PROGRESS

OBSTETRICS AND GYNÆCOLOGY.

THE USE OF COLD IN LABOR —Dr Grognot (*Bull Gen de Therap*) recommends the use of cold to produce and increase labor pains It is well known that to palpate the abdomen in a pregnant woman, the hands must be of approximately the same temperature with that of the skin of the patient, otherwise if too cold the disagreeable sensation will produce immediate contraction of the muscular walls of the abdomen and prevent a proper examination But, if persisted in, this may extend to the uterus itself, and give the sensation of the presence of a regular globular tumor, contracting, not from the pressure, but from the effects of the cold There are uteri which contract upon the slightest touch, but they are rare, and pressure generally produces no such effect In consequence of these observations, Dr Grognot uses a wash basin or bucket of fresh water, into which, when it is deemed desirable to provoke pains or to accelerate labor, he places his hands for one or two minutes, and then applies them over the abdomen, and as fully as possible over the region which covers the antero superior surface of the uterus In a few seconds the patient complains of a pain and the hands are removed It is sufficient to use fresh water, as a greater degree of cold would not hasten contractions to any greater extent To this may be added manual pressure and manipulation It is generally not necessary to use this method more than ten or fifteen times The following are his conclusions

1 The application of cold provokes marked contractions during labor
2 They are normal in their effects
3 This method is without danger to the mother or child
4 It can be used independently and without instruments
5 It can be employed during all the stages of labor, for the expulsion of the foetus and also for the removal of the placenta

CHRONIC DYSENTERY TREATED BY VOLUMINOUS ENEMATA OF NITRATE OF SILVER —Dr Stephen Mackenzie has read a paper on this subject before the Clinical Society of London (*Med Times*) The mode of procedure he adopted was as follows The quantity of nitrate of silver to be used was dissolved in three pints of tepid water in a Leiter's irrigating funnel, which was connected by India-rubber tubing with an œsophageal tube with lateral openings The patient was brought to the edge of the bed and made to lie on his left side, with his hips well raised by a hard pillow The terminal tube, well oiled, was passed about eight or ten inches into the rectum, and the fluid allowed to force its way into the bowel by gravitation The injection rarely caused much pain, and often none It usually promptly returned, but when long retained it was advisable to inject chloride of sodium, to prevent absorption of the silver salt Various strengths had been used from thirty to ninety grains to three pints of water, but usually one drachm of nitrate of silver was employed The treatment was based on the view that, whatever the nature of dysentery, whether constitutional or local, in the first instance, the later effects were due to inflammation or ulceration of the colon, which was most effectually treated, as similar conditions elsewhere, by topical measures Sometimes one, sometimes two injections were required, and in some cases numerous injections were necessary, but in all the cases thus treated, many of which had been unsuccessfully treated in other ways previously, the disease had been cured The cases narrated were 1 In which the disease had lasted several years on and off, two injections were used and the case was cured in six weeks 2 Second attack, duration uncertain, four injections used, cured in five weeks 3 Duration two months, two injections used, cured in three and a half weeks 4 Duration five years, one injection used, cured in three weeks 5 Duration eighteen months, two injections used, cured of dysenteric symptoms, but remaining under treatment for diabetes 6 Duration fourteen months, one injection used, cured in seven weeks

Dr Carrington said that this treatment had been tried in the hospital at Greenwich without any remarkable effect, but the injections had not been so voluminous as those used by Dr Mackenzie, which might, perhaps, explain the fact The colon was usually capable of holding six pints of fluid, and the three pints used in some of the cases might possibly have failed to reach the affected parts

CHRYSOPHANIC ACID IN CUTANEOUS AFFECTIONS OF THE EAR —Dr Strequart (*Jour de Med*) reports five cases benefited by this treatment The first case was in a patient 31 years of age affected for six months with an eczema of the scalp, and for fifteen days with acute eczema of the right ear—thickening of the skin, liquid exudation, purulent and sanguinolent otorrhœa Ordered chrysophanic acid internally, in the dose of 2 centigrammes per day, and injections of a warm solution of boracic acid In two days the discharge diminished, the eruption became paler and the skin thinner Two days later there was desiccation and desquamation of the skin The dose of the drug was increased progressively to 5 centigrammes a day, when the stomach no longer tolerated it After eight days of treatment the affection had almost entirely disappeared Six months later there had been no recurrence The second case was in a patient 15 months of age, suffering from impetiginous eczema of the scalp of six weeks standing, which for fifteen days had involved the ears Two centigrammes a day were given, and in seven days the cure was complete The third case was three years of age, affected for three weeks with impetiginous eczema of the chin and right ear, same dose, on the fourth day desiccation and peeling of the skin, on the seventh day, cured Fourth case, a patient of four years, acute eczema of meatus and auricle of right ear, same treatment, cure on the seventh day Fifth case, patient 35 years of age, suffering for four months from a chronic eczema of the auricles of each ear, following double purulent otitis Was given 3 centigrammes of chrysophanic acid a day Less redness about the mastoid and parotid region, and diminution of sense of burning of auricles and meati in two days Notable amelioration in five days Complete cure in twelve days

Treatment of Amenorrhœa by Permanganate of Potash —Drs Ringer and Munell have used the permanganate of potash in 69 cases of amenorrhœa in solution or in pills, beginning with a dose of 6 centigrammes three times a day and increasing it progressively to 12 centigrammes This treatment has given excellent results in young girls, 18 to 25 who were affected with amenorrhœa from taking cold The treatment should be commenced several days before the time for the appearance of the menses The results of this treatment have been no less satisfactory in women from 35 to 40 years, in whom the amenorrhœa was symptomatic of repeated confinements and prolonged lactation On the other hand, if the amenorrhœa is in consequence of normal pregnancy, the treatment is perfectly inoffensive It remains inert if the amenorrhœa occurs in the last stages of phthisis In the first stages of phthisis, the permanganate may cause the menses to reappear, but it has no influence on the progress of the disease Finally, in young girls where the establishment of the menstrual period is retarded, it has but little effect

The use of the permanganate in solution is sometimes followed by nausea, vomiting and acute pain under the sternum This drug does not seem to act by modifying the composition of the blood, for it acts equally well with the plethoric and the chloro-anæmic

Ipecac in Minute Doses for Metrorrhagia —Dr Jules Cheron (*Rev Med Chis des Maladies des Femmes*) has used this drug in a large number of cases of metrorrhagia, without regard to the causes as to whether they were functional or symptomatic, and with marked success Its use for this purpose as an emetic is nothing new—as producing a slowing of the circulation and cardiac pulsations, but in minute doses, where it does not produce vomiting, or even nausea, it modifies, according to Dr Cheron, the excito-motor force of the spinal cord as with, but better than, bromide of potassium He uses of powder ipecac, freshly prepared, 0 20 centigrammes, divided into twenty papers, and gives one every hour, except the hour which follows a meal After having used the whole of the 0 20 centigrammes, the medicine is suspended for twelve hours, to be recommenced if the metrorrhagia has not been completely arrested

Vesical Injections of Nitrite of Amyle —Dr Dittel, of Vienna, recommends (*Sym Med Annales Maladies des Organes Genito Urinaires*) the use of injections of nitrite of amyle into the bladder when the urine is ammoniacal He prepares three drops of nitrite of amyle in solution in 150 grammes of water, and for each injection he uses a spoonful of the solution in a litre of water, with which he washes out the bladder by the use of the double sound The influence on the urine is very rapid, and after the first washing out the ammoniacal and insupportable odor is replaced by a very agreeable odor of ether

Subcutaneous Injections of Caffeine for Adynamia —M Huchard uses, at the Hospital Bichat (*Jour de Med*), subcutaneous injections of caffeine as an agreeable and satisfactory substitute for subcutaneous injections of ether, in adynamic affections that succeed hæmorrhages He considers the drug as preferable to ether from being less painful, and from having a favorable action upon the urinary secretion, and particularly upon cardiac contractility This makes the injections indicated in all typhoid and adynamic conditions (pneumonia, dothinenteritis, post-hæmorrhagic anæmia, etc) He uses the following formula

Sodium salicylate, 3 grammes 10 centigrammes
Caffeine, 4 grammes
Distilled water, 6 grammes, or q s for 10 cubic-centimeters Dissolve in a water-bath Each cubic-centimeter contains 0 40 centigrammes of caffeine

Sodium benzoas, 2 grammes, 95 centigrammes
Caffeine, 2 grammes, 50 centigrammes
Distilled water, 6 grammes, or q s for 10 cubic centimeters
Each cubic centimeter contains 0 25 centigrammes of caffeine

The tonic and stimulant action of caffeine is also utilized in the form of wine caffeine containing 0 10 centigrammes of the active substance to the spoonful, and preparations are also made from a West African drug called *Kola*, which contains more caffeine than does coffee

But caffeine is not only a tonic and stimulant, it is also a cardiac stimulant which sometimes gives admirable results in the last periods of asystoly, when the heart no longer responds or responds but imperfectly, to digitalis The drug will not act in affections of the heart and kidneys unless it is given in the large doses of 0 50 centigrammes to 2 grammes a day To assure its solubility it is necessary to mix it with salicylate of sodium, or better, with benzoate of sodium, as in the following formula

Distilled water, 300 grammes
Benzoate of sodium, } each 5 grammes
Caffeine, }
Two to six soup-spoonfuls daily

The Action of Salicylate of Soda upon the Uterus —M Balette has shown (*Jour de Médecine*) the good effects which follow the use of this drug in dysmenorrhœa, where the salicylate of soda quiets the pains and facilitates the discharge of the menstrual fluid A dose of from four to six grammes, taken in three divisions, gives excellent results, and often quiets the pains at the end of fifteen minutes or a half an hour But the drug has also another property which is less known, a menorrhagic action M Bucquoy has observed this influence, and M Balette cites several observations which show that the salicylate may provoke metrorrhagia in certain cases, or rather prolong the menses and increase the quantity of the blood-flow

This action may be explained as in the cases where the salicylates readily produce other hæmorrhages, as hæmaturia, and particularly epistaxis, as also vesical, pharyngeal, gastric and intestinal hæmorrhage

The production of abortion has also been attributed to salicylate of sodium, but the evidences are contradictory With several patients it would seem as if the abortive action was well manifested, with others, on the contrary, it had no effect In M Balette's experiments upon animals, the drug had no oxytocic action, and it would seem not to be abortive when given in moderate therapeutic doses But as there are women who are predisposed to abortion, it is advisable, during gestation not to give the salicylate of sodium without proper cause, and to watch carefully the degree of toleration in the individual to the drug

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2 The mortal toxic dose in the blood of the rabbit is $^1/_{151}$, in the dog $^1/_{153}$, $^1/_{203}$, $^1/_{194}$

3 The fixation of urea in the tissues and blood does not seem to produce a diminution of muscular force

4 The effects produced by the urea are not due to the presence of ammonia in the circulation

5 When urea is injected into the blood, or when solutions of urea are used subcutaneously, the tissues take up great quantities of the urea

6 The toxic doses in man are in every respect comparable to those in animals Physiology and clinical facts reach the same conclusions, urea is a poison whose toxic dose can be determined with exactness

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I suggested that we try the experiment over the trachea, from which the most intense respiratory sounds are to be obtained. We did so, and found that the tracheal sounds could not be heard at all when the tubes were plugged. I have often used the solid stethoscope in auscultatory percussion, but I have never been able to hear the respiratory sounds through it.

Theoretically, the solid stethoscope is all that Haupt claims for it, but practically it is worthless, and consequently we conclude that something is wrong with the theory. Any one who will take the trouble to plug the tubes of his stethoscope, and then attempt auscultation of the lungs, may speedily convince himself that Haupt is not correct in his conclusions.

E. FLETCHER INGALS.

64 State street, Jan. 10, 1885.

BOSTON, Jan. 8, 1885.

DR. DAVIS:

Dear Sir:—In the last numbers of the JOURNAL there is an extract (page 15), on "Perception of Sound in Auscultation," by Haupt. The writer theorizes a great deal, and his final conclusion is "that the bore of the stethoscope is quite superfluous, and a solid 'hearing staff' with a wide ear piece and a wide chest piece is the theoretically perfect instrument."

I *theorized* about thirty years since in the same manner, but *facts* upset my theory. My three *solid stethoscopes* remain now as relics of past experiments that were fruitless. Soon after these futile attempts on *theoretical grounds*, that skillful auscultator, Dr. C. P. Camman, of New York, kindly sent to me one of his Binaural Stethoscopes which compelled me to give up *all single* stethoscopes, whether perforated or not.* This admirable instrument *proves* that the position theoretically taken by Haupt (even the "vibrations started by the heart and lungs are incompetent to impart audible vibrations to a light medium like air,") is wholly unfounded in facts. Probably Haupt never saw a Camman stethoscope, or he would never have advanced such opinions.

Yours truly, B.

COLLECTIVE INVESTIGATION OF DISEASE.—At the last annual meeting of the Pennsylvania State Medical Society, a committee was appointed on this subject, consisting of Drs. James Tyson, Charles R. Mills, and Robert N. Chase. A letter from the chairman of the committee, Dr. James Tyson, states that they have prepared a circular and cards on which to record observations for acute pneumonia, chorea, and acute rheumatism, and endeavored to place them in the hands of every member of that Society. If any member has been accidentally omitted, he can obtain copies by applying to the chairman of the committee, 1506 Spruce street, Philadelphia, Pa.

The cards and questions and diseases are the same as used by the committee of the British Medical Association, for the purpose of making the returns capable of comparison in both countries. The parties receiving these cards are requested to fill and return them to the Chairman of the Committee before the first day of April, 1885.

At the annual meeting of the Illinois State Medical Society, held in May last, a committee was appointed on the same subject, consisting of Drs. N. S. Davis, J. H. Hollister, J. F. Todd, E. P. Cook, and G. Wheeler Jones. This committee had printed, memoranda and cards in relation to the same diseases mentioned above and some others, and through the Secretary of the Committee, Dr. J. F. Todd, of Chicago, they were distributed to a large part of the members of the Society more than three months since. How many have been filled and returned to the Secretary we have not learned. But it is very desirable that all should be returned to the Secretary of the Committee before the first of April next. We think a committee on the same subject was appointed by the Ohio State Medical Society, and perhaps by some others. As this method of investigation has now become international, we would feel greatly obliged for information directly from all existing committees of State Societies in this country, that we may be prepared to report the exact degree of progress thus far made, to the next meeting of the American Medical Association, and also to the Secretary General of the International Collective Investigation Committee in London.

ANNALS OF SURGERY.—We have just received the first number of this new periodical, published simultaneously in the United States and Great Britain, and edited by L. S. Pilcher, M. D., Brooklyn, N. Y., and C. B. Keetley, F. R. C. S., London, England. The number contains 96 pages on good paper, and published in good style by J. H. Chambers & Co., of St. Louis, Mo., at $5 per annum. Its pages are devoted exclusively to surgical science and practice, and the reputation of the editors is sufficient assurance that it will be worthy of the patronage of all interested in the practice of that department of medicine.

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*Of late years, the manufacturers of the Camman double stethoscope divide it into two parts and fail to give to it the proper curves laid down by Camman. I deem this unfortunate for the profession, although it is still far superior to any *single* stethoscope.

OMISSIONS —In the list of permanent members of the American Medical Association, published in the JOURNAL of December 27, 1884, the names of Warren W Foster, M D, Putnam, Conn, and P C Williams, M D, Baltimore, Md, were accidentally omitted In the same list the residence of Dr G B Ward should be Fairbank, *Iowa*, instead of Ohio

SOCIETY PROCEEDINGS

SUFFOLK DISTRICT MEDICAL SOCIETY.

Albert N Blodgett, M D Secretary

SECTION FOR CLINICAL MEDICINE, PATHOLOGY, AND HYGIENE

BOSTON, MASS, Dec 10, 1884

The meeting was called to order at 8 o'clock, by Dr R T Edes, P M, chairman

Dr H I Bowditch asked the privilege of addressing the Section for a few minutes, prior to the transaction of the business of the evening, and spoke as follows

Before we enter upon the regular business of this Section, I beg permission to announce the death of one of the ablest of the members of the Massachusetts Medical Society I allude to Henry A Martin He was, in my estimation, one of the strongest of the medical men it has been my fortune to meet either here or elsewhere His long residence in Roxbury, and his frequent intercourse with the physicians and surgeons of Suffolk and Norfolk counties, seem naturally to call upon us, who as a Section of the State Society meet first after his death, to take some notice of that event, and of the loss which the profession has sustained

Dr Martin died of diabetes, quietly, and apparently without suffering, during the forenoon of December 7, 1884 He had been fully aware for two years that the disease had fastened upon him, but he made little or no complaint, even to his family, and kept steadily at professional work until within a few past weeks Finding that his strength was gradually but surely lessening, he had thought of resigning all laborious out-of door practice and attending only to consultations at his office During the last weeks especially, his physical debility was greatly increased, and he kept his bed, but with no improvement

Believing that death was near at hand, he calmly bade farewell to his family, and soon after fell into a quiet sleep, from which he never awoke Let us hope that such a tranquil ending of this life may be vouchsafed to us all

In looking upon Dr Martin's life and character, we must, I think, admit that in most of his salient points he was a man *"sui generis"* I at least know of no one like him Intellectually he was far above most persons I have met, and physically he was one of the tallest and seemingly one of the most stalwart

In conversation, not only upon medical subjects, but upon a large range of topics, some of them widely removed from professional thought, he was superior to the majority of men He had studied deeply into the history of medicine In this department I know but one of our living associates who could approach him He gloried in the greater heroes among the medical men of the past Especially was he drawn to any one who by native vigor of intellect, and perhaps fierce professional contests, had won for himself fame in spite of all the babbling opposition of men who apparently hated him because of his very superiority to themselves For example, he sympathized heartily with that giant of our profession, grand old Ambrose Paré, who gained his ever enduring fame in spite of the sneers of the robed professors of the School of Medicine at Paris, and the carping criticisms of smaller men in the profession at large From a similar superiority of mind, and perhaps we may allow, from an apt readiness and joy in intellectual controversy, and from the fact that he never concealed an opinion though it struck rather severely, or perhaps sarcastically at even a friend's favorite notion, some have been led to think that Dr Martin was too pugnacious Truth compels me to admit that at times he may have been almost severely hypercritical in allusion to the writings or actions of others Especially was this trait manifested whenever or wherever he knew there was a lack of fair dealing on the part of an opponent But he was always a brave and frank-speaking antagonist I have had some sharp passes with him at times, but our friendship was never marred by them Nay more—I can say truly that my respect for him has always been rather increased than lessened by these contests, for I found him always open and fair in his opposition to my views Anything like cant or hypocrisy or unfair dealing, exhibited by an opponent, seemed to awaken in him a sort of fury, and he unsparingly used the lash upon his antagonist With a kind of Martin Luther violence he would at such times hurl defiance at anything or person that arose before him, and right manfully he would defend the position he had taken I grieve to say that, in consequence of this peculiarity, some of the more sensitive of those whom he felt himself called upon to criticise may not hold his memory in their hearts so gratefully or so inspiringly as I do I shall always regret his loss, because our relations were always friendly, notwithstanding an occasional difference in opinion, and from him I could often gain excellent information which I could get from none else

Before closing these remarks, which are so much of a merely personal character, I would refer to the fact that in addition to having been an able medical practitioner amongst us, he has been of inestimable advantage to every community in the world where animal vaccination is now used His energy and decision of character, his knowledge of the past, have brought us all back to first principles on vaccination, as proposed by Jenner

One at least of his surgical devices is almost universally used, not only in this country, but in Europe, and probably elsewhere where surgery is practiced

For the above reasons and because he was an able practitioner of medicine and surgery for many years amongst us, and because medicine has been helped onward by his life's work, I have wished that due honor should be paid to the memory of our dead associate

Believe me, gentlemen, you will wait for a long time before a man comparable with him will arise amongst you

By motion of Dr Blodgett, seconded by Dr J P Reynolds, Dr Bowditch was requested to convey to the family of Dr Martin the regrets of the Section at the loss of one of the distinguished members of the medical profession

SACCHARATED OXIDE OF IRON

Dr G L Walton exhibited a preparation of iron to which he had alluded some months ago in a published article, but which had not become generally known to the profession He said

It may possibly be remembered that I called attention [1] some time since to several agreeable iron preparations in common use in Germany, but not as yet introduced into America The merits of one of these preparations especially impressed me, namely, the so-called *Eisenzucker* (*Ferrum Oxydatum Saccharatum Solubile*), and I am glad to be able to show a specimen of it this evening, and to state that Metcalf & Company have undertaken its preparation, with this very satisfactory result It is a brownish red powder, of a very agreeable, sweet taste, completely soluble in five parts of water, and containing three per cent of metallic iron It does not discolor the teeth, and on account of its ready solubility may be taken for an indefinite length of time without affecting the digestion, even in cases where iron is otherwise ill borne It will be found especially valuable in chlorosis, for susceptible nervous patients and for children The dose is five to twenty grains three times a day, to be taken in water or in powder Most convenient and agreeable will be found the tablets, of which I have here five and ten grain specimens Mr Davidson assures me that this particular sample contains three and one-half per cent of iron by actual assay He also tells me, it may not be out of place to state, that he finds the precautions given me by the Leipzig pharmacist, Herr Blaser, of the utmost importance, and that a much more satisfactory result is reached by following his directions (detailed in the article already alluded to) than by following simply those of the pharmacopœia The difficulty of making the preparation may have had something to do with the postponement of its introduction in this country Its value, however, once recognized, I feel sure it will be generally adopted, and it is rather remarkable that among the needlessly multiplied and unsatisfactory forms of iron in American pharmacy this really elegant preparation has been so long overlooked To show that it is not identical with, and that it is far superior to, the saccharated carbonate of iron, I have brought a specimen of the latter, which has very much the color and general appearance of dirt, and is not particularly agreeable to the taste I pass around two bottles containing about five grains each of the powders and half an ounce of water It will be seen that, while the *Eisenzucker* makes a perfectly clear red solution, the carbonate is only partially dissolved, giving a murky mixture with a black residue (Dr Edes asked for the composition, saying that it could hardly be an oxide if soluble in water) In answer to Dr Edes I cannot find that the chemical formula has been made out It is certainly more than doubtful if it is really an oxide, notwithstanding its name It is mentioned in the United States Dispensatory under *Ferri Peroxidum Hydratum* as a *so called* oxide of iron adopted in the German pharmacopœia The process of manufacture was then described briefly

In answer to Dr Webber, Dr Walton said that he did not know how long the solution in water remained unchanged, but that it did so for several days he could state with certainty from observation

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extending over a long time and comprising several hundred observations, an abstract of which is here given —

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The frequency of absence of the cutaneous reflexes was as follows

	Cases Examined	Present	Absent
Plantar	234	217	17
Cremaster	167	146	21
Gluteal	179	113	66
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Scapular	177	15	162

In nearly every case in which the plantar and cremaster reflexes were absent there was either some lesion of the reflex arc, as in neuritis or myelitis, or some cerebral disturbance like coma, hemiplegia, or convulsions No pathological cause could be assigned for the absence of the other reflexes When the reflexes differed on the two sides it was usually significant of some unilateral disturbance of the nervous system, but in one or two cases no such disturbance could be made out

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The tibial reflex was found usually in cases where the patellar reflex was exaggerated, but was not necessarily pathological

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The presence of the reflexes of the upper extremity was found to be very common The cause of absence was not clear

The costal cartilage reflex was found very often, and no clear relation between its presence and the existence of phthisis was apparent The other reflexes were unimportant

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Dr Edes spoke of the varying results which will be obtained according as the blow is struck with a greater or less amount of force, and penetrates more or less deeply into the tissues The study of the phenomena of the patella is very interesting This is entirely absent only in those cases in which the nervous centers may be supposed to be diseased

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DOMESTIC CORRESPONDENCE.

DEAD TEETH IN THE JAWS.

To the Editor of The Journal of the American Medical Association —*Sir The Medical Record* of November 8th contains a reply from Dr Samuel Sexton to gentlemen who have criticised in the columns of that journal, his previous article on "Dead Teeth in the Jaws", and I beg space to present some views on this long neglected, but very important subject of lesions of the dental organs

If, by means of this discussion, members of the profession are brought to more fully realize the value of faithfully bestowing upon the teeth the care essential to their preservation—of adopting proper hygienic measures to this end, and of appreciating the difference between the scientific treatment of dental diseases and the treatment too often resorted to by uneducated dentists, the laity as well as the profession at large will be greatly benefited thereby

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If, by means of this discussion, members of the profession are brought to more fully realize the value of faithfully bestowing upon the teeth the care essential to their preservation—of adopting proper hygienic measures to this end, and of appreciating the difference between the scientific treatment of dental diseases and the treatment too often resorted to by uneducated dentists, the laity as well as the profession at large will be greatly benefited thereby

Dr Sexton says "The retention in the jaws of teeth which are diseased, from death of the pulp or from caries, have become irremediably sensitive to thermal influences, or have been deprived of adequate periosteal nourishment through calcareous formations about the roots, very frequently gives rise to nervous diseases about the head I am convinced that these reflected nerve influences manifest themselves much oftener since dentistry has come more extensively into practice during the present generation, and greater efforts are made to retain defective teeth in the jaws "

That diseases of the teeth are often the center from which pain is reflected to the eyes, ears and other parts, all experienced clinical observers must admit. But that these pathological conditions of the teeth, from which reflected pain has its origin, can be and are successfully treated and cured with rare exceptions, as effectually as any other diseases, is a fact too well established to be set aside.

It is not possible to describe in this letter the methods by which the various diseases of the teeth are treated, but suffice it to say that "teeth which are diseased from death of the pulp or from caries" *do not* "become irremediably sensitive to thermal influences." In proof of this statement, many thoroughly educated medical men, practicing the specialty of dental surgery, will testify.

"Teeth deprived of adequate periosteal nourishment, through calcareous formations about the roots, very frequently give rise to nervous diseases about the head." To this statement I assent, but dissent as to the remedy not mentioned but implied, *i. e.*, the removal of the teeth. If the calcareous deposits mentioned have destroyed so much of the pericementum together with the alveolar processes as to render the teeth very loose, if, indeed, the teeth have lost their bony support and are retained by means of a remnant of pericementum only, they can not, of course, be restored to permanent health and usefulness, and their removal is, therefore, indicated. Teeth in this condition "frequently give rise to nervous diseases about the head."

On the contrary, if the calcareous deposits have not destroyed the pericementum and alveolar processes to a very great extent, the condition is amenable to successful treatment and cure. In answer to the assertion that "Reflected nerve influences manifest themselves much oftener since dentistry has come more extensively into practice during the present generation," I would say, that with equal propriety it might be said that reflected nerve influences manifest themselves more frequently since gynæcology has come more extensively into practice. To attribute the obvious increase of nervous diseases during the present generation to diseases of the teeth is a statement not only "sweeping," but "overdrawn." *Much harm* is no doubt done by some of the modern appliances "for retention in the mouth of substitutes for absent teeth," and the unhealthy state of the gums and contiguous parts, established and maintained by the presence of these substitutes, unquestionably give rise in many cases to reflected pain.

When Dr. Sexton attempts to establish a *law* governing the management of diseased teeth, it must be based upon more substantial grounds than those which he presents. The case related of his patient, the "medical man, who practices dentistry," and who was convinced that an inflammation of one of his ears began from the time the upper second molar of that side was treated for a diseased pulp, is simply an assumption, on the part of the patient, that the ear trouble had its origin from the diseased tooth, and the patient's diagnosis of his own case seems to have been accepted by Dr. S. as conclusive. The ear disease in this case may have emanated from the diseased tooth, but no evidence is produced to that effect. In regard to the query as to "whether it is safe practice to retain dead teeth in the jaws," I would say that thousands of people in our own country have had pulpless (not dead) teeth in their jaws many years, which are exempt from pericemental disease, and which serve all the purposes for which teeth were provided. To ask whether it is safe practice to retain these, so-called, dead teeth in the jaws when they have been comfortable and useful from ten to forty years and promise to remain so through life, seems like a proposition too injudicious to need comment. While the death of the pulp results in "cutting off the source of nutrition from the dentine," it does not follow "that in a large number of instances irritation can not be easily controlled."

Neither does the tooth become a foreign substance. The dentine and the enamel are, of course, no longer nourished after the death of the pulp, but their resisting structure renders them capable of maintaining their integrity many years after the pulp has been removed, and the pericementum will nourish the cementum and thereby retain the tooth in its alveolus in a comfortable condition. In order, however, to thus retain the tooth and prevent inflammation from supervening, the devitalized pulp must be removed, the pulp canals thoroughly disinfected and filled with a plastic material which hardens when in position. Dr. S. most clearly exhibits his imperfect knowledge of the dental operations in vogue, when he says: "Inflammation of exposed dentine cannot surely be entirely arrested in any case by filling the pulp cavity with any known extraneous material, and especially is handicraft wanting to even imperfectly protect the minute and often tortuous canals leading down to the apical foramina of the majority of the teeth." To arrest "inflammation of exposed dentine by filling the pulp cavity," in the opinion of Dr. S. would seem to be most desirable. How a tissue without nourishment and consequently without vitality can take on or maintain inflammation is beyond comprehension. The impervious filling which I have herein mentioned will close the apical foramina, together with the canal, which "in the majority of cases" *is not* tortuous to a degree of rendering the perfect filling of the root difficult or uncertain, and the assertion that the dental surgeon "is able only to offer a hopeful but uncertain prognosis in these cases" is contrary to well established fact. There are no diseases to which mankind is heir more scientifically and effectually cured than the diseases of the teeth in question.

Again. "The dead tissues of the dentine will sooner or later, most likely, be transmitted through the tissues of the cementum to the periosteum." Communication between the lacunæ and canaliculi of the cementum with the tubuli of the dentine is not free; indeed, it seldom exists, hence it cannot be "that through the periosteum alone the dentine may long derive some nourishment."

About 22,000,000 of teeth are annually extracted in the United States, and I regret to say that this enormous loss of teeth is to no small extent due to the indifference manifested by physicians in the anatomy, physiology and pathology of these organs It is a fact that no one will attempt to gainsay, that hygienic measures directed toward the preservation of the deciduous set, if understood, are seldom recommended by the general practitioner to the families under his charge The premature loss of these teeth paves the way for early lesions of the permanent set The pain resulting from advanced caries of the deciduous teeth, owing to the difficulties encountered in controlling the patient, is not easily treated, moreover, the injurious impressions thus made upon the system of the child abide through life There is no doubt that hundreds of thousands of teeth are unnecessarily extracted each year, and then drugs are given with a view of curing the patient of the disorders of digestion and other abnormal conditions which follow, and which in turn arise from imperfect mastication of food, verily for the want of teeth

We need to know "what's the matter" in the treatment of these " nervous diseases about the head," as in all others, and apply a remedy which will bring the abnormal tissues back to health Too often, indeed, has it happened that patients, by advice of their medical attendants, have submitted to a loss of many, and in some instances all their teeth, in the vain endeavor to get relief from trigeminal neuralgia You may ask, Why this useless loss of teeth, and all the evils resulting therefrom? Because the advice given was not wise, the etiology of the affection was not understood

There are certain pathological conditions of the teeth which have not been mentioned in this discussion, and which give rise to reflected pain to the eyes, ears and other parts

Exostosis of the fangs of teeth and nodules of calcific matter within the pulp canals in contact with a living pulp The former of these conditions has been regarded incurable, the removal of the tooth with the united bony tumor being indicated In favorable cases, however, this tumor may be excised and removed without removing the tooth The pulp nodules or calcified deposits within the pulp chamber may be, in a large majority of cases, successfully removed without sacrificing the tooth

No one approves more than I the removal of the causes of disease It is no more necessary to extract a tooth at the root of which an alveolar abscess has formed than it would be to amputate a limb for the cure of an abscess of the medullary substance of its bone Disease of the eye sometimes requires that it be enucleated, but the honest, skilled ophthalmologist *would not* remove the eye when he *knew* he could restore it to usefulness The spirit of the teachings of Dr Sexton's articles is far from being progressive Nor is this all, many assertions are not based upon fact, but upon erroneous impressions Our duty to our profession and the laity is not to destroy, but to save, and while ignorance is ever working its mischief in all vocations in life, it is not just to accept the results of such work as a basis upon which to found a law

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NEW YORK LETTER.

NEW YORK, Dec 20, 1884

For some time past the subject of cholera has received a good deal of attention in the societies here, and it may, perhaps, be of interest to note the views of some of the prominent medical men of New York in regard to Koch's theory of the disease so far as they have been expressed at these meetings The one who has expressed most fully and forcibly his belief in the probable correctness of the opinions of Koch is Dr Austin Flint, Sr That Dr Flint would be likely to take this position whenever he enunciated his convictions on the subject was rendered almost certain by the elaborate paper which he read in support of the essential dependence of tuberculous disease on the *bacillus tuberculosis* at the first public meeting of the New York County Medical Association in January last At the October meeting of the same society he read an equally elaborate paper on "The Parasitic Doctrine of Epidemic Cholera," in which he maintained that in order to form an opinion as to whether the disease was due to a specific micro-organism, it was not necessary to have personally verified the evidence which the microscope afforded, but that this claim, like many in courts of law, was to be substantiated or rejected on the testimony of a sufficient number of competent judges, such as alone could arrive at any sound conclusions It was logically certain that the diseases now classed as infectious diseases involved each a distinct specific causative agent of some kind, and that this agent was a living organism was the most rational supposition It was, therefore, noteworthy that the discovery of micro-organisms as causes of infectious diseases, so far from being in opposition to previous views, was, in reality, a confirmation of the prevailing views of the ætiology of these affections At the present time there was no room for doubt as to the dependence of certain infectious diseases on specific micro-organisms, and if it were demonstrated (as had indeed been done in the case of several) that any single one of these diseases was caused by a specific parasitic organism, it certainly seemed to be a rational inference that they all have a similar causation In regard to Koch's researches in epidemic cholera, he said that if it were established that the comma bacillus was invariably present in the disease, and that this parasite was never present except when the cholera existed, as claimed, it would be logically certain that there was an essential pathological connection between this parasite and the disease, but the crucial test of inoculation would be required for determining a causative relation between the two In tuberculosis the proof that the parasite peculiar to that affection, after a series of cultivations, was capable of producing the disease by inoculation, was absolute, but up to that time Koch had reported failure in his efforts to obtain similar proof in the case of cholera A few days before Dr Flint read his paper, however, there was first published in this country an account of the experiments of Rietsch and Nicati at Marseilles, in which they claimed to have succeeded in producing cholera in the case of dogs, guinea-pigs and other animals by the introduction of a pure culture of comma bacilli into the duodenum, after ligation of the ductus choledochus Still, failure to inoculate would by no means disprove the parasitic doctrine of cholera, since it had been shown that all animals were not susceptible to the morbific action of micro-organisms which were known to be the causative agents of specific diseases in man Aside from this positive proof, there were certain ascertained facts which aim to sustain the parasitic doctrine of cholera If it were accepted that, reasoning by analogy, all infectious diseases are regarded as parasitic, the pathogenic claims of the comma bacillus over other intestinal bacteria seemed, with our present knowledge, to be paramount There are certain well-marked lesions of the mucous membrane of the small intestine which are either due to the presence of this parasite, or they furnished a peculiar soil for its cultivation, in the latter point of view the parasite being a product of the lesions Now, epidemic cholera, in all parts of the world except India, was an exotic disease and of rare occurrence, and it seemed, therefore, vastly more improbable that the lesions precede the presence of the parasite than that the latter exists prior to, and is the essential cause of, the lesions Koch's observations had shown that the comma bacillus was very short-lived, and they were in harmony with the observations made in cases of cholera and with the clinical history of the disease Cholera was a disease remarkable on account of the brief duration of its career, which was not longer than that of the successive generations of the comma bacillus when cultivated outside of the body Again, some striking facts had been observed by Koch in India which went to show that the parasite had been introduced into the body prior to the development of cholera Such is a synopsis of the argument made use of by Prof Flint In summing up, he said that to accept a doctrine prematurely because it was new and attractive would not be less illogical than an irrational skepticism, but while a proper sentiment of conservatism should lead us not to commit our minds unreservedly until sufficient data had accumulated to serve as a solid basis for a judicial decision, he believed it altogether probable that the decision would be in favor of the doctrines named In the discussion which followed, Dr E G Janeway expressed himself as in entire accord with the views of Dr Flint in regard to the parasitic origin of the disease

At a meeting of the New York Academy of Medicine, held in November, Dr Frank H Hamilton read a paper giving an account of the outbreak of cholera at Suspension Bridge in 1854, and also presenting his personal views in regard to our present knowledge of cholera In the first place, he said, we had no positive knowledge of the existence of a specific cholera germ, though it seemed highly probable that there really was such a germ In regard to the comma bacillus of Koch, he said that H Van Dyke Carter, of Bombay, had proved that this microbe was not infrequently wanting in cases of cholera, and that it was occasionally found in diarrhœal diseases other than cholera Again, he said, Surgeon Major Timothy Lewis, of the British Army Medical School (Netly), had found that comma like bacilli, identical in size, form, and in their reaction with aniline drugs, with those found in choleraic dejecta, were ordinarily found in the mouths of perfectly healthy persons (Dr Flint had also alluded to Mr Lewis's claim, and said in reference to it that it did not appear that the culture-test of the faucial bacilli had been resorted to, while if the statement made by him was incorrect it could not fail to be disproved by other microscopical observers) Finally, Finkler and Prior had found the comma bacillus in cholera morbus He then referred to the experiments of Rietsch and Nicati, and said he thought their conclusions should be received with hesitation, since, so far as he was aware, none of the kinds of animals claimed to have been inoculated with cholera have ever been known to contract cholera through natural sources, and it seemed to him probable that the surgical procedure adopted by these experimenters had excited an irritation in the intestinal tract which gave rise to symptoms resembling those of cholera Moreover, one of the French cholera commissions, while failing to inoculate animals by means of the comma bacillus, had succeeded in doing this by injecting into them the blood of cholera patients On the whole, therefore, it seemed to him that Koch's claims for the comma bacillus had not as yet been substantiated If, as seemed to be a fact, he went on to say, there are several microbes found in the intestines and dejecta of cholera patients, we did not know which one of these might be the active causative agent, or whether the cholera infection was not conveyed by the fluids in which they were found, rather than by the microbes themselves The theory of Koch, that the infection entered the system through the alimentary tract alone was not proven, and he believed there was good reason for supposing that it also entered by means of the respiratory organs and was diffused through the circulatory system

In the discussion which followed, Dr Francis A Delafield said he thought that at the present day all would be willing to acknowledge that cholera belonged to the class of diseases believed to be due to the agency of some specific poison The latest theory in regard to the cholera poison or germ was in accordance with the prevalent opinion of the times There are always fashions in the scientific world, which are sometimes good and sometimes bad, and the present fashion was to refer the causation of all infectious diseases to particular minute living organisms While Dr Hamilton had stated the evidence for and against this hypothesis in the case of cholera, he had not stated (a matter that it was important to have in mind), that out of quite a number of experimenters who had investigated the subject, there might in reality be only one or two whose testimony could be accepted as worthy of credence The *technique* of such investigations was exceedingly laborious and complicated, and he believed that there are extremely few individuals who are sufficiently expert in its details to be capable of making trustworthy observations As to the probable correctness or erroneousness of Koch's conclusions, Dr Delafield did not commit himself to any opinion

Dr Alfred L Loomis thought that cholera belonged to that class of infectious diseases in which the special poison is developed in a living organism, but is in a passive state when it leaves such organism, it being necessary that the agent should undergo certain changes in connection with decomposing organic matter, after leaving the body, before it is capable of giving rise to infection He believed in the existence of specific cholera germs, and that in a large percentage of cases it entered the system through the intestinal tract It remained true, however, that this sometimes occurred also through the respiratory tract, and all that one could say positively was that it undoubtedly entered the body through the mucous membrane Although all previous researches in regard to the specific germ of cholera are insignificant compared with those of Koch, he would not be willing to accept the conclusions of the latter until it could be proved beyond any question whatever that the comma bacillus was always present in cases of cholera, that it was never found in any other disease than cholera, that it was never found in the healthy body, and, finally, that inoculation with it would give rise to cholera

At the November meeting of the County Medical Association, Dr Charles A Leale read a paper on the cholera epidemic of 1866, but no reference was made to the bacillous origin of the disease At the meeting of the Association which was held December 15th, however, when there was a general discussion of the subject of cholera, Dr Janeway spoke at length of the latest researches of Koch, which had so materially strengthened his position in the eyes of scientific men

By disproving, in the most successful manner, the claims of Lewis, who thought he found the comma bacillus on the faucial mucous membrane of healthy individuals, and of Finkler and Prior, who claimed to have discovered it in cholera-morbus, and, on the other hand, by his own complete and satisfactory confirmation of the results obtained in inoculating animals by Rietsch and Nicati, Koch had now, he believed, added the "missing link" that was necessary to complete the proof, and had positively demonstrated the correctness of his views in regard to the parasitic doctrine of cholera In one point, however, he differed from Koch The latter thought that the infection always entered the system through the alimentary tract, but it seemed probable to him that it was sometimes received by means of the breath It was possible, however, he thought, that it might be carried by the breath into the mouth, and then swallowed, as he believed was undoubtedly the case sometimes in typhoid fever The President of the Association, Dr Wm Detmold, thought that while the bacillus was now the fashion, he was not satisfied that it had been proven to be the essence on which cholera depends All new discoveries, he contended, had to be sifted through a great many cool brains before they could be accepted as scientific facts Dr Flint's remarks on this occasion were mainly of a practical nature, as Dr Janeway had said all that he wished to add in regard to Koch's doctrines, and in case of a visitation of cholera he urged with great force the importance of a thorough house-to-house visitation on the part of the health authorities The past history of the disease showed, beyond the shadow of a doubt, that the disease as a rule was thoroughly amenable to treatment in the early stage, and he believed that if every family in the community could be visited every day by a sanitary inspector, and have the inquiry put to it whether any of its members were affected with diarrhœa, cholera would be divested of a very large share of its fatality

The Board of Estimate and Apportionment has added to the provisional estimate for the health department the sum of $50,000, to be used only in case the cholera comes, but when we reflect how vast would be the pecuniary loss to the city in case an epidemic should occur, it cannot fail to be seen how much better, from a monetary view, it would be that the appropriation should be used for additional sanitary work now, before the cholera comes, in order to put the city in the best possible condition in advance The Board of Health is believed, by competent judges, not to be as efficient at present as it was under the administration of Prof C G Chandler, and the reason for this is attributed to political influences Thus, for months the manure dealers maintained a notorious nuisance, but no attempt was made to interfere with it by the board until the ladies of the neighboring district of Beekman Hill appealed to the grand jury and secured the indictment of the contractor, accompanied by a reprimand to the health board In commenting upon the matter recently Prof Chandler remarked "I believe it was the action I took against those yards that lost me the presidency of the board, for the men connected with the manure business are rich and have a strong political backing "

P B P

WAVELAND, IND , NOV 14, 1884

DEAR JOURNAL —The following extract from a letter, written by a young lady to her most intimate lady friend, gives an amusing account of a consultation held in her case at Lancaster, Pa

Her physician Dr A , being in doubt, takes her into the city to consult Dr M , but the extract speaks for itself

> Just imagine me seated in one of Mr C's parlors, with Dr A on one side and Dr M on the other, both questioning at the same time, "Put out your tongue , let me feel your pulse , please look me right in the eye, no harm to look the old doctor in the face Does your back pain you much ? Your side ? Your head ? Your breast ? Allow me to hear the pulsations of your heart, no harm for the old doctor to place his ear to the *young ladies'* heart," etc , etc You would not wonder if I could not keep from laughing or crying (I did not feel particular which), weak and sick as I felt myself to be

I needn't add that they diagnosed the case and treated it successfully, but if my patients are going away to write me up in that manner I shall hereafter confine myself to essentials By the way, I have lately had an interesting experience, as a large scar that have examined this subject, none, perhaps, have attained a wider hearing than Magitot, of Paris. This gentleman published a work on this subject in 1868, in which he makes an extended examination of the subject, arriving at the conclusion that decay is caused by acids. These acids, however, are derived from the saliva through the process of ferment action. Dr. Magitot instituted a long series of experiments to determine the effects of the suspected acids on the teeth. This series of experiments shows that most of the organic acids act very feebly on the teeth in the proportion of one to one thousand of water; and that in the proportion of one to one hundred they act quite energetically; so that the teeth submitted to their action will be completely decalcified within a few weeks or months. Most of this series of experiments were continued, however, for two years. The conclusion seems to be that caries may be produced by any of the group of acids that may be developed by the fermentation of the saliva. These are the lactic, acetic, butyric, etc.

Dr. Magitot states distinctly, that the agency of micro-organisms in the production of these acids, is admitted by him; but discusses this phase of the subject no further. He makes no effort to determine to what extent these acids may be formed in the mouth. All of his experiments were tried out of the mouth, and no provision, whatever, was made to ascertain the effect that fermentation may have had on his solutions in the progress of his experimentation. This being the case, the only result of the experiments is the determination of the strength of the solutions of these different acids, necessary to decalcify a tooth.

This, together with the fact, obtained from other sources, showing that most of these acids are the products of certain fermentations that may go on in the mouth, gives much force to Dr. Magitot's conclusions.

Very soon after Dr. Magitot's work, in the same year, indeed, came the work of Lieber and Rottenstein, to which we have referred. The work seems to have been written for the express purpose of showing that decay of the teeth is caused by the life and development of the fungus known as leptothrix buccalis. In this the authors seem to have signally failed. They certainly make but little advance toward the demonstration of the parasitic theory of this affection. Indeed they do not seem to have endeavored to show that this fungus does more than promote decay that has already been established.

They say, after having made an extensive examination of the life and growth of the leptothrix, "From what has been said it results that two principal phenomena manifest themselves in the formation of dental caries, viz.: the action of acids, and the rapid development of a parasitic plant, the leptothrix buccalis."

They do not suppose the leptothrix buccalis capable in itself of attacking the teeth, if their condition be normal, but when their surfaces are once softened by acids, then the fungus may penetrate the portions thus softened, and continue the destruction.

Again they say: "It seems that the fungi are not able to penetrate an enamel of normal consistency. The dentine itself, in its normal condition of density, offers great difficulties to their entrance, and we are not yet sure that the leptothrix could triumph over this resistance." Again: "We cannot decide at present if the leptothrix is able to penetrate sound dentine, when, from any circumstance, it happens to be denuded." * * * "But, if the enamel or dentine are become less resistant at any point, through the action of acids; or if, at the surface of the dentine, a loss of substance has occurred, then the elements of the fungus can pass into the interior of the dental tissues, and produce by their extension, especially in the dentine, effects of softening and destruction much more rapid than the action of the acids alone is able to accomplish." * * * "The participation of the fungus is constant in the progress of caries which have reached this stage. As soon as a loss of substance can be shown there is found the presence of the fungus, so that the question whether or no the acids alone could produce ravages more considerable is without importance."

The modus operandi by which leptothrix may produce softening of dentine is left without explanation. We can conceive, however, that they may do something to assist the softening process by the outpouring of a digestive fluid. If, however, this fungus gave a fluid that would digest a tooth, we would think that sound teeth would be very scarce, for it grows abundantly in every mouth.

Since the time of Lieber and Rottenstein's work we remember of no other of much importance having appeared on this subject. The discussion has continued, however, in the journals. We cannot undertake to review this literature, interesting as it would be; but we must content ourselves with one writer, Dr. Miller, now of Berlin.

Dr. Miller's experiments bear the stamp of being more carefully performed than any that have previously come to our knowledge. This was have been expected from the fact that they are the latest, giving the experimenter the advantage of all that has gone before, and for the reason that he is very favorably placed for such work, being in the midst of the best experimenters of the world. Therefore his work is looked to with unusual interest.

We need not, however, notice any but his last series of articles, that which is now appearing. We cannot, of course, criticise Dr. M.'s work now, for we have not heard him through; but enough has appeared to show very clearly what the result will be.

Dr. M. begins this series of articles with this sentence: "During the last two years I have stated at different times and places, as the result of many experiments, that 'the first stages of dental caries consists in a decalcification of the tissues of the teeth by acids, which are for the greater part generated in the mouth by fermentation. The object of the investigations described in this and the following papers is to determine this ferment, and the conditions essential to its action.'"

We see from this that Dr. Miller begins just where Dr. Magitot left off, sixteen years ago. The discussion of the subject during these years has given us no additional facts as to the essential nature of these phenomena, but the advance of thought in reference to the general subject of such investigations has been such that no man would now repeat Dr Magitot's course of experimentation with the same end in view

I will give you a very brief synopsis of Dr M 's course And while I do so I wish you to keep in mind the object he has in view It is admitted that decay is brought about by acids, developed, or Dr M supposes them to be developed, by fermentation of some kind The object of this course of experiments is to find and examine this supposed ferment

It is not necessary that I should describe in detail all the apparatus with which the experimenter provided himself, it is sufficient to say that all the appliances for the prevention of error were used The first question to determine was whether or not the ptyaline of the saliva could so change starch as to produce an acid This question was soon decided in the negative The starch was promptly changed into sugar, but here the reaction ceased, the fluid remained permanently sweet when the proper precautions were observed to prevent the ingress of germs This proves that the acidifying power does not belong to the saliva It must, then, be something foreign

Now, a freshly extracted carious tooth was taken, all food removed, the outer portions of the decayed mass saturated with a 90 per cent solution of carbolic acid to destroy any accidental germs that might be in this portion Then, with an instrument, purified by heat after each cut, layer after layer of the softened dentine was removed until the inner portions were reached Then a slice was quickly conveyed to a sterilized culture medium, composed of sterilized saliva, water, sugar and starch, and placed in an incubator, together with another test tube of the same culture fluid uninfected, to serve as a check In twenty-four hours the infected culture became acid, while the other did not This remained constant in a sufficient number of experiments to establish the fact that the acidity was due to the infection

From the cultures that had become acid, other cultures were infected, which also became acid, thus proving that the experimenter was dealing with a ferment that was capable of propagating itself, an organized ferment

Microscopic examination showed that these cultures contained an organism similar to those found in the deeper layers of carious dentine, and which remained constant in their characters Chemical examination which seems to have been carefully conducted, showed the acid produced to be lactic acid This acid has been shown to be capable of decomposing the teeth by M Magitot, and many others Yet Dr Miller goes still further, and by placing sections of dentine in his culture fluids that he has infected, finds that they are decomposed by the acid formed, while such sections placed in such fluids not infected are not changed Thus he not only proves that an acid is formed, but that the acid is formed in sufficient amount to destroy the dentine

This, when compared with the best experimentation previously had, marks a great advance One point seems to have been gained One organism has been traced thus far, and may now be said to have been proven to be able to produce certain of the phenomena of decay But this is not all There is much yet to be done True, one other point is spoken of by Dr Miller All who have made a careful study of caries know that there is a peculiar enlargement of the tubules, which is not seen in dentine softened by acids alone Dr Miller has been looking for this also, and not without success, for in some sections of dentine exposed to the action of the cultures, he found the organisms crowding into the tubules, and tells us that he also found them enlarged as in natural caries of the teeth in the mouth, indeed that he had before him veritable caries, artificially produced

This delineation of results of experimentation must have great weight in the settling of the problems at issue, especially if they are confirmed by other competent observers There is nothing in these experiments that is not in harmony with known facts, unless it be the widening of the tubules by the crowding in of the organisms It is known by previous experiment that this widening is not caused by the lactic acid as it exists dissolved in the surrounding medium, and I think very few will be willing to concede that the organisms can accomplish this by physical force This point requires further investigation, and its study will doubtless lead to further discoveries However, I think it may be explained in advance, at least the effort may serve to direct experimentation

In a previous lecture I have dwelt at some length upon the digestive fluids of living organisms Unexpectedly I find use for these ideas now, for they were written before I saw Dr M 's last article I have explained how it is that dead bone, roots of the temporary teeth, ivory driven into the flesh, catgut ligatures, sponge, etc , are dissolved and removed by a soluble ferment I have also shown that the soluble ferment of the yeast plant has been found and proven Also that of ammoniacal fermentation, and how plants take up otherwise insoluble substances Now, this widening of the tubules is a conceded fact It is also shown that it is not done by the lactic acid in case of other experiments, nor can it be done by the physical force of the organisms, but it can, in all probability, be done by the digestive fluid of the organism The conditions for this work of the digestive fluid are the same as that of the granulations in widening the meshes of the sponge and finally removing the last of it As yet no soluble ferment has been demonstrated in connection with this organism, but theoretically it must exist, and if Dr Miller should undertake to search for it, he will be able to demonstrate it speedily, and determine its cooporation in producing some of the phenomena of decay, at least determine its capabilities This organism cannot be said to have been definitely and completely studied until this soluble ferment, or diastase, be found, isolated, and its capabilities separately determined (Since the above was written Dr Miller has reported the finding of this soluble ferment)

It is by no means probable that this is the only organism that may stand in a causative relation to caries (Since the above was written, Dr Miller has also reported the finding of another micro organism that he thinks capable of producing caries)

The organism of butyric fermentation, possibly that of acetic fermentation, and a large number of others of the acid fermentations, may cause decay, nor is it by any means a settled fact that decay of the teeth may not be brought about in part by other vital processes than the acid fermentations Of this, however, we will speak later

Another question may arise in this matter and need explanation I have repeatedly said that the waste products of an organism prevented the activity of that organism when collected in a certain amount How then can this organism continue to thrive in its own waste product, and thus continuously promote caries, by furnishing more, and still more, of this waste product? Simple enough Every chemist who has studied lactic fermentation has been in the habit of introducing some form of lime into the fermenting fluid to "fix" the lactic acid in the form of a lactate of lime, in which case it does not hinder the progress of the fermentation In this way a much larger amount of the lactic acid may be obtained, as it is readily regained from its salts This was learned long before this organism was found Now, in the production of caries, the tooth presents the lime for the formation of the lactate, and thus furnishes the very conditions necessary to the continuous growth of the organism

I wish now to turn your attention for a moment to another class of phenomena, and make some inquiry into their possible participation in the production of caries I have already spoken of the strong probability that the otherwise normal tissues, when under the influence of certain qualities of inflammation, emit a fluid of acrid and very irritating properties About the necks and other parts of children we sometimes see this fluid excoriating the skin wherever it touches it, seemingly acting the part of a caustic I have already referred to the fact that dead bone, ivory driven into the flesh, sponge, catgut ligatures, etc , are dissolved and removed This causes us to inquire whether or not a substance may be elaborated in the same manner in the mouth, that may have its quota of effect in the production of the phenomena of caries

I was thoroughly convinced that this was the case years ago, though I endeavored to explain the results by the assumption that an acid was formed This is entirely unnecessary Soluble ferments do not seem to depend for their action on either acidity or alkalinity They seem to be controlled by some other than the known chemical laws, and their action is not yet understood We have no means of explaining them If a piece of ivory thrust into the flesh is attacked and burrowed out in holes by a secretion thrown out by virtue of the irritation induced, as asserted by Krause, Keoliker, and other of the most capable observers of the world, why may not a tooth be attacked in the same way by virtue of an irritation of the tissues about the neck, or during the irritation consequent upon its eruption when this is unusually prolonged? As a matter of fact, it has been observed that decays are prone to occur in just such situations as tend to confirm this hypothesis

Thirteen years ago we drew attention to this, in a paper before the Illinois State Dental Society Both before and since that time I have given much attention to this point, and I am more than ever convinced that it has much to do with the beginnings of decay I do not wish to be misunderstood in this matter It is not my notion that decays are initiated by this cause alone It is only one of the first steps by which other forces which come later are rendered operative —a means, if you please, by which the surface of the tooth is first broken, and by which organisms are permitted to find lodgment, not a means by which decay is carried on, to the complete destruction of the tooth This effect cannot be produced except while the tissues are in contact, or in very close proximity to the part in the process of solution, for the reason that the secretion from the tissues would be dissipated in the fluids of the mouth before they could have time to produce their effects upon the tooth's structure

The positions at which these results are seen, are Wisdom teeth, that come through very slowly, on the buccal surfaces of the molars generally, and sometimes on the labial surfaces of the upper incisors In case of the wisdom teeth, the fact that they are very often decayed before they are fully through the gum is especially remarked, and as a rule, if these decays are carefully noted at a very early period of their progress, it will be seen that they are different from other decays in several respects It always has its beginning under the free margin of the gum There is usually no change whatever in the appearance of the tooth, the eye discovers nothing The surface seems normal, or at most the portion of the tooth appears rather whitish, but on trial with the excavator the instrument will apparently break in through the enamel prisms, disclosing a cavity of very slight depth It often happens that the enamel may be easily scraped away over a considerable space, as though it was so much chalk The depth will present much variation, often it is only a part of the thickness of the enamel, at other times we may find it extending into the dentine, in which it forms a veritable cavity If there is much depth, however, the characteristics will have assumed the more usual type

Occasionally we see this character of decay (if it may be so called) in the grinding surfaces of the wisdom teeth, occasionally in the first molar, also, where the tooth has come through very slowly, and the gum has been for a long time in a state of chronic irritation

It is characteristic of this effect that it is as often seen on the smooth surfaces of the teeth as in the pits and grooves No imperfection is necessary to prepare the way for this manifestation

As I have said this takes place under the gum, is covered by the gum Now as the tooth rises higher and the surface thus affected becomes exposed, these spots are prone to become the seat of true caries with all of its usual manifestations However, very often caries does not take place In this case, a whitish spot is seen, which gradually assumes a yellowish tinge, then brownish, and finally becomes black This result is brought about by the settling into, or the formation in, the affected tissue of the black sulphurets, as I was the first to show (See report on dental chemistry, by Dr H A Smith, Transactions of the American Dental Association, 1874, page 78)

We see these spots every day upon the sides of the molars in every stage of coloration, from ashy white to a deep black They are as apt to be on the otherwise smooth surfaces as in the pits and grooves They may occur on any of the teeth, but are oftenest seen *in the position named The decays that so often* occur on the labial surfaces of the upper incisors, are often, though not uniformly, of the same character

Those decays that occur just at the junction of the enamel and cementum, in persons of middle age or past, occasionally in younger persons, seem, in very many cases, to be of the same character Some irritation of the gum at the immediate spot seems to be one condition of their beginning These also have some special characteristics not common to other decays If they are closely examined very early in their inception, it will be found that the cementum has been removed, and that the margin of the enamel has become chalky, soon after this, if the case continue to progress, the gum, which till now was closely applied to the part, becomes everted so as to expose the breach in the tooth This often becomes the seat of the most exquisite sensitiveness just at the present stage of the process, which calls the attention of the patient to the spot Generally, however, nothing can be seen by either patient or operator, except a slight evertion of the gum, and the slight grooved appearance of the neck of the tooth, which the operator is often puzzled to differentiate from the normal form of the tooth However, if he will carefully press the gum away (and he will find this abnormally sensitive) until he can see the root of the tooth below plainly, it will be easy to demonstrate that there has been a decided loss of substance Trial with an instrument will develop the fact that the surface within this groove is exceedingly sensitive, the dentine is exposed Now if the case is left to itself, this sensitiveness will continue for some weeks, or even months, and then abate, and it will be found that the case has taken on the usual character of decay It may cease to progress and assume a dark color, or it may progress rapidly, and remain of a more or less ashey cast

It has been our opinion that this class of decays, if that term can be applied at this stage, is brought about in precisely the same way that the root of a permanent tooth is partially absorbed on account of a chronic irritation of its peridental membrane In other words a soluble ferment has been called out by the irritation, that has dissolved out a part of the tissue at that point Or, if you prefer to have it put in that way, a true absorption has taken place which forms the nidus for the future decay

Another class of decays are very common which I have studied very closely, and which seem to be of the same character in their inception These begin under the free margin of the gum under plates that abut closely against the teeth These are usually very rapid in their course, evidently for the reason that as soon as the free margin of the gum is everted a pocket is formed by aid of the plate, in which fermentation can proceed to the very best advantage It does not seem that the beginning of this decay is often after the evertion of the gum has uncovered the spot Of course, we often see decays occur where clasps encircle the teeth that are high up on the crown Such must not be confounded with those that begin at the margin of the cementum

DISCUSSION ON DR BLACK'S PAPER

Dr Marshall —In Dr Miller's experiments on dental caries, whether produced in the mouth or artificially in his culture fluids, he invariably found an enlargement of the dental tubuli, to the extent of the penetration of the affection, and that the tubuli were filled with micro organisms

Dr Boedecker, of New York, found the same enlargement of the tubuli, but minus the micro organisms, in his experiments with regard to the action of arsenous acid upon healthy dental tissue

Dr Black refers the cause of the enlargement in Dr Miller's experiments under both conditions, to the action of a soluble ferment produced as a waste product by the *bacterium lactis*, and which dissolves or digests the organic portion of the tubuli, and the inorganic material surrounding it, while Dr Boedecker refers the condition found in his experiments to inflammatory action resulting in absorption caused by the irritation of the arsenous acid

I would like to ask Dr Black whether he considers the conditions found by these gentlemen to be identical?

Dr Black —I will first say that I do not regard the results as caused in both instances by the *bacterium lactis*, but in both cases the results are brought about, in all probability, by a digestive body The action in both cases is the same in kind, the philosophy of the widening is the same in both instances, the difference being that the digestive bodies that do the work are produced by different forms of life In the case of Dr Boedecker's experiments, the conditions described could only be due to the formation by the irritated dentinal fibrils of a menstruum which digests and removes the tubular wall

In Dr Miller's experiments, the bacteria form a menstruum which digests and removes the walls of the tubuli

In the case of the *bacterium lactis*, a digestive body, or diastase, has now been demonstrated by Dr Miller, the organism is fully proven to be able to perform the act of digestion, and we know that the tissues of the higher animals have the power of removing parts by what is usually called absorption, and which is a form of digestion

It has been well shown that the pulp chamber may be enlarged in this way in cases of long-continued irritation of the pulp Bone is also easily removed under pressure, evidently by a similar vital process—a process of digestion by means of a digestive body

Dr Allport —Dr Boedecker's experiments with arsenic upon dentinal tissue (though not yet fully completed) were upon living tissue, and evidently prove that there was inflammatory action set up in the tubules, causing absorption of material Dr Miller's experiments were upon dead tissue (teeth out of the mouth), and the action seems to have been a chemical one In the first, the process was a vital one, and may be in kind like that manifested in the absorption of the roots of deciduous teeth, the removed material being largely taken into the general circulation, which may have been "re-molecularized" and converted into new tissue, or carried off as a waste product

While, in the other case, the action was entirely from without, and would seem to have been from acids, and independent of vital processes within the tissues I can imagine how micro-organisms may produce a sufficiently exalted irritation of the dentinal fibres to cause absorption of material similar to that produced by the irritation of arsenic in the experiments of Dr Boedecker

But in either of these conditions I should expect the changed material would be largely carried off in the general circulation, the same as it is in the enlargement of the pulp cavity consequent upon continued irritation of the pulp, as suggested by Dr Black, or the absorption of the roots of the deciduous teeth, in both cases the organic and inorganic materials are removed entire, while in caries occurring in the mouth the inorganic material only is largely removed, the organic portion remaining behind to die, be decomposed and washed away, or pass off in gases

In the experiments of Dr Miller the conditions are entirely external, and a purely chemical action, resulting in a simple change of the elements, and their removal consequent upon the affinity of lime for acids Whether the fungi excrete an acid or not (and more than likely they do) is of no material consequence so long as the acid is found there, it is the affinity of lime for acids, no matter how produced, whether from a decomposition of foreign matter, or excreted by the fungi that, to my mind, produces the changed condition in the devitalized dentine

I have, of course, been much interested in the arguments of Drs Black and Miller They are highly interesting, and there is little doubt that we are approaching a correct solution of this vexed question, but it will be well for us to pause before we pronounce too confidently that either of these gentlemen accounts for all the phenomena of dental caries

Dr Williams —May not the enlargement of the tubules be caused by the physical force of the micro-organisms exerted upon the walls of the tubules? In the vegetable kingdom such instances are not of rare occurrence, rocks have been split, and large masses of solid material moved by the continued pressure of fungous growths

Dr Fredericks —Mills and Underwood first called attention to the enlargement of the dentinal tubuli, and they presented microscopical specimens to substantiate their views Dr Boedecker's experiments do not prove anything I would not put much reliance upon the observations of two experimenters I think we are begging the question

Some observers can see whatever they desire to see, and later their observations are proved to be worthless May not the enlarged appearance of the tubuli be due to the methods used in preparing the slides?

Dr Allport —I would suggest that Dr I L Susserott, of Chambersburg, Pa, be invited to speak upon this subject

Dr Susserott —I am certainly very much pleased with the paper just read by Dr Black, it proves the truth of the lines by Butler, that

> "Large fleas have little fleas,
> And these have fleas to bite 'em,
> And there are fleas to feed on these,
> And so *ad infinitum*"

Various remedies have been introduced for the antiseptic treatment of surgical diseases, the most potent of which is bichloride of mercury As used in general surgery, a solution of 1 to 1,000 is perfectly harmless, and I do not see why it might not be used with safety and success in the treatment of dental caries

Dr Harlan —The bacillus anthrax and the bacillus tuberculosis can live in absolute alcohol, and also in a 5 per cent solution of chloride of zinc

In order to know how to destroy micro-organisms we must study the individual organism, and apply the special agent which will destroy their vitality

Eugenol—in the strength of 1 in 75,000, will destroy bacteria, and a weak solution will prevent the development of the spores

Dr Black —I quoted an expression of Dr Miller's saying it was unfortunate, viz "the first stages of dental caries consists in a decalcification of the tissues of the teeth by acids, which are for the greater part generated in the mouth by fermentation" This is the same question discussed of old, of who led the pig to market, the man or the string The string is the means used by the man, and the acid is the means used by the micro-organisms, but the acid can no more cause decay, or even exist in that position, without the organisms than the string can exist, and lead the pig without the man

The micro organisms that produce caries must have free oxygen Therefore, if you plug a tooth perfectly over a little softened dentine you exclude the free oxygen and destroy the organisms It is possible, of course, that an organism not requiring free oxygen might produce caries, but all evidence we have is against that supposition

Dr Fredrich—It seems to me we are still begging the question What is the need of antiseptic treatment of caries if micro organisms cannot exist without free oxygen? When a cavity of decay is hermetically sealed no oxygen can enter, and consequently micro organisms cannot develop

Dr Marshall—It has been proved by Pasteur that there are certain forms of micro organisms that exist without free oxygen, in fact can not develop in that medium, and it is not at all improbable that such micro-organisms may exist as factors in the cause of secondary caries

Dr Black closed the discussion by saying We must come to the point of finding specific micro-organisms A poison for one form is not necessarily a poison for another Only about 17 per cent of alcohol can be produced by the yeast plant, because the excretory product of the plant—alcohol—in that degree of concentration becomes a poison to the plant and prevents further growth This same alcohol, however, is the natural food of the mycoderma aceti This plant produces acetic acid, which in turn will stop the growth of its plant at a certain degree of concentration This will now become the food of other organisms So it is, that that which is poisonous to the one is not necessarily poisonous to another Certain diseases occur in the child that do not occur in the adult We believe some of these diseases are produced by micro organisms There is some difference in the nature of the tissues or fluids in the two cases that renders the adult unfavorable soil for the growth of these organisms This gives some hope that in the continuous round of research some means may be found of antagonizing micro-organisms without a resort to poisons, as is now done These will certainly be different for different organisms

On motion it was agreed that owing to the lateness of the hour the reading of the paper by Dr Harlan be deferred, and that it be the first order of business at the session to morrow

The Section then adjourned

FRAGMENTARY COMMENTS ON SOME OF THE PRINCIPAL METHODS OF OPERATION FOR "STONE IN THE BLADDER"

With Special Reference to Allarton's Method, Also in Combination with Lithotripsy, Urethro-Lithotripsy, Urethrotomia Lithotriptica, Including Besides Critical Remarks Upon the Discussion of the Progress Made in Lithotripsy and "Lithotomy" at the Late International Medical Congress held in London, England, and divers other subjects comprising the Urinary Organs

BY M SCHUPPERT, M D , OF NEW ORLEANS, LA

(CONCLUDED)

Spasmodic Strictures, or Spasms of the Urethra —When the bladder is to be sounded we meet occasionally with contractions, or spasms of the urethra, in the introduction of the bougie, causing great difficulty in the free motion of the instrument Singular as it may appear, it is nevertheless true that the existence of such a spasmodic condition has been, and is still, denied by a great many surgeons Since John Hunter first called attention to that phenomenon, most all authors on surgery, though they might have mentioned the subject, still kept silence Their own knowledge was either very limited or they had none at all It is indeed rare to meet with an author who has observed these spasms in more than one or another case, and it seems as if their mere mentioning of them was more for the purpose of showing that they were not ignorant of the pretended existence of such strictures Brodie, Guthrie, Dittel, Bardeleben, Koenig and others belong to that class Roser, in his surgical anatomy, calls them "a thing about which much could be said " He evidently keeps "on the fence," to use a vulgar expression, as the safe side to escape a responsible position Sir H Thompson, the "great lithotomist," evidently crowns ignorance in calling such spasmodic strictures of the urethra "*a materia peccans*"—"*a refugium incompetenciæ* "—"an excuse used to cover one's own want of skillfulness to enter a catheter into the bladder " Not quite so rash, Mr Thompson ! Among the few authors I have met with, who do not treat these spasms as doubtful accidents, are the late C Hueter and Esmarch, of Kiel, of blood-saving fame The latter declares to have experienced such spasmodic strictures "dozens of times almost every year " Indeed, what a very nervous people these inhabitants of Kiel and surroundings must be I myself have during my practice here met with those spasmodic strictures of the urethra in but few instances, that is, of such spasms as caused a real obstruction to the entering catheter or bougie, and which might have been taken for strictures of an organic nature, whilst contractions of a short standing, I have more frequently met with They are also caused in a small degree by the application of the galvanic current, which, moreover, is an evident proof of the existence of muscular fibres in the urethra, though equally denied by a good many surgeons It is hard to believe, though nevertheless a fact, that a great number of anatomists, besides surgeons, up to this day are still in doubt about the existence of such muscular elements in the urethra The bladder, no doubt, is a muscular sac, surrounded by muscles, as for instance, the mighty detrusor The prostate is furthermore a muscular ring, a sphincter, and both detrusor and sphincter are, according to Henle, in *a constant active tonic condition* Might we then not, and very properly, question why the balance of the urethra should be so entirely bare of all muscular elements? It may be difficult to dissect the urethral muscle, a continuation of the prostatic ring, but that it exists and causes the spasmodic contraction of the urethra, and mostly so at the pars membranacea, aside of the compressor urethræ, cannot be doubted for a moment Muscular fibres, and strong ones besides, do exist here, the many denials to the contrary, notwithstanding Most all anatomists admit one thing that the space between the two layers of the deep pærineal fascia, the fascia pærinei propria, or capsula-pelvis urethralis, after Luschka, contains sufficient muscular fibres We have then to admit two small, flat muscles extended between the ramus ischio-pubicos, of which one, the *compressor urethræ Guthrie's*, is situated *above* the urethra, while the other, the *constrictor isthmi urethræ*, lies *beneath* that organ (to both of which muscles Guthrie has applied the name "*compressor urethræ*") By the activity of both muscles the urethra is compressed, and if an instrument is introduced, it will be held firmly, or if by a reflex action from the sensitive nerves, those muscles should be called into action, spasms may be produced, resisting the introduction of the instrument and resembling the existence of organic strictures Such happens mostly at the pars membranacea These reflex spasms of the m compressor urethræ are involuntary, beyond the control of the patient's will *Wilson* named the muscular fibres surrounding the pars membranacea, the *m pubo urethralis* *Amussat* gave them the name *pars muscularis urethræ*, and *Krause* described them as *circular fibres* Here then at least are some noted anatomists refusing to plead "a general denial "

The surgeon, in entering a bougie or catheter, ought to take into consideration the disposition of his patient If of a nervous temperament, and one who probably never had an instrument in his urethra, in such a person the irritability of his urethral nerves may be so exorbitant that at every minute he will grasp at the instrument It is an involuntary, irrepressible conflict, in which the will becomes totally routed In such a case the surgeon has to use the utmost care to establish the diagnosis, and avoid being too hasty in predicting the presence of organic strictures In meeting with such an obstacle any and every force to penetrate with the instrument any further is to be interdicted, because pain and the spasms would thereby only be increased, and a laceration or a false passage be established Under a weak but steady power, holding patiently the point of the instrument against the stricture, the spasms in most instances will soon subside, and the resistance disappear In such nervous subjects a subcutaneous injection of morphia is best applied previous to another introduction of the instrument Ice applications to the pærineum may also be of service In some cases, and mostly so in irritable children, narcotization with chloroform may even become necessary

There are cases on record where death has even resulted from the introduction of a catheter, and more frequently do symptoms happen resembling the algid stage of an intermittent fever, which very improperly has been called "*urethral fever*," though no rising of the temperature happens

All these are proofs how careful the surgeon has to be in meeting with such persons, and where he is obliged to enter an instrument into the urethra The mischief ignorance and stupidity may cause in spasmodic strictures, principally consists in the establishment of *false passages* I have had ample opportunity to become acquainted with such lamentable proofs of malpractice What surgeon, even of a limited practice and experience, who, if he has not had the misfortune to cause a false passage himself, will not have met occasionally with such proofs of unskillfulness? And who, in falling in with one or another of such cases, will not have become aware of the difficulty of introducing the catheter, and the more so if, in his manipulations, he should meet with the simultaneous presence of spasmodic strictures? Such obstructions, often seemingly insuperable, suffer hardly any comparison with any other obstacles existing in a surgical operation They offer a condition wherein the greatest patience, endurance and perseverance are demanded Very properly, therefore, said one of England's greatest surgeons, Liston "The operation of introducing a catheter through what has been called an impermeable stricture, is, without doubt, the most difficult in the whole range of surgical operations, and demands all the prudence, science and skill of a master " And what of that difficulty and mastership if such a case should be associated with one or more false passages? Spasmodic strictures may happen in the urethral channel as far as muscular fibres extend If a metallic bougie is introduced into the urethra, replenishing its lumen, so that the walls are in close contact with the metal to which the positive pole of a galvanic battery (of about ten elements, Daniels) is attached, while the negative pole is placed somewhere on the body of the person, the bougie thus located in the urethra will after awhile be held so firmly that its removal without causing any injury to the mucous membrane of the urethra can only be accomplished, and in an easy manner, by exchanging the poles of the battery, attaching the negative pole to the bougie where the positive one had been before, producing the tight grasp of the contracting muscles of the urethra The degree of contraction increases the further the point of the bougie is pushed towards the bladder, or with the increase of muscular fibres, while the contraction becomes weaker toward the meatus and ceases totally just behind the glans penis

Without the presence of muscular elements that phenomenon would be unaccountable In view of the opposition which here exists, the total denial of the existence of muscular fibres in the urethra, it must, indeed, look strange that no author has ever mentioned this phenomenon, and the more so since the galvanic current there exist still other means to arouse the contractility of the muscular elements If a "*sound, a double courant*" occupies the urethra and a stream of ice cold water runs through the instrument for the space of ten or fifteen minutes, the sound will also be grasped, and so tightly, that it requires some care and time to retract it without causing injury to the organ And the degree of contraction corresponds here also with the length of the urethra occupied by the sound or the increase of muscular fibres towards the bladder

The Urine —Though a great deal has already been said of that liquid, still its importance may well deserve a special chapter

In all operations comprising the urinary tract, the dogma of the noxious action of the urine, when coming in contact with wounds has played and still plays an important role Most all surgeons are endeavoring to find means and ways to get rid of that, to them, almost unexceptionally dangerous material. Proofs of that *ignis fatuus*, the urine, if coming in contact with a wound can be met with in the works of many authors, especially gynæcologists Thus *Wutzer*, of *radical cure of hernia* fame, in operating for vesico-vaginal fistula perforated the bladder above the symphysis pubis, torturing his patients by confining them on knees and elbows during twelve days, for the sure and constant removal of that same inimical liquid, the urine, to obtain, finally, after a dozen unsuccessful operations, and some cuticular gangrene on the knees of his patients, a complete failure But at a much later period, and most conspicuously, could that fear of the urine be observed by Simm's invention of a self-retaining catheter, to keep the bladder constantly empty and the wound protected against that noxious liquid, the urine The real action of the urine on one side, and the existing confusion and ignorance on the other, call, therefore, for some further elucidation

It has been asserted that urine coming in contact with incised wounds, would prevent union by first intention It has also been admitted that urine, by infiltrating the tissues of incised or lacerated wounds, would produce necrosis and gangrene, and by infiltrating the pelvic cellular tissues cause even the death of the patient Such, at least, was the generally admitted dogma, till the late Prof G Simon, of Heidelberg, Germany, in 1862 published his experiments, in which he proved that the sweeping assertions of the noxious effects of urine had no foundation of fact on which to rest Simon showed in an incontrovertible manner that urine of an acid reaction was an entirely innocent liquid, and that only to an alkaline urine, or one in a state of decomposition, the noxious influences could be attributed Simon established further, by numerous tests, that it required from five to ten days before an acid urine having been in contact with living animal tissues would turn alkaline, and that an acid urine, though having been in contact with dead animal matter, or having stagnated for some time in the living subcutaneous cellular tissues, did not became pernicious to that tissue as long as it retained its acidity On the contrary, it seemed rather as if such acid urine, probably by its saline constituents, acted more as a preservative Necrosis and gangrene of the tissues, so often observed in penetrating wounds of the urinary organs, of the bladder, or urethra, when a great quantity of an acid urine had infiltrated the tissues, could not be explained as a chemical, but as a mere mechanical action of the urine In such an action the blood vessels nourishing those parts would be compressed or lacerated, in consequence of which gangrene might set in The faulty interpretation of these facts mainly caused the fable of the pernicious property of the urine The same extensive gangrenous destruction might be brought on by using large quantities of pure water, if only a certain pressure on the nourishing blood vessels could for some time be maintained by them

Unaware of the experiments of Simon, I had called the attention of the profession to the innocuousness of a healthy normal urine It so happened that in the treatment of a case of vesico-vaginal fistula, I was forced by circumstances to relinquish the seemingly well established rule of the after treatment, to retain a catheter in the bladder Again disregarding that rule in the next operation, to find out if it had been a lucky accident, or if the use of the catheter could be dispensed with without injuring the result of the operation, it became with me the rule, instead of the exception, to dispense with that most annoying part of the treatment—the retaining of the catheter The experiments of Simon, which meanwhile had come to my knowledge, taught me the reason why, and from that time I took the precaution to operate only in the presence of an acid urine, and obtain the same success as formerly under the old rules of the protecting catheter [1]

The investigations and experiments of Simon have been of the greatest importance in the operation of cystotomy, in fact, wherever an alkaline urine may come in contact with wounds of the urinary tract The urine ought, therefore, always to be examined previously to an operation on those parts, and no operation ought to be undertaken before that liquid has been made acid It is then that the most scrupulous and thorough methodical antisepsis be employed by irrigation of the bladder and urethra with 3 per cent phenol water Many an operation with a probably fatal exitus would, under an observation of this important rule, meet an entirely different issue

Bigelow, in the description of his method, has not given any special preparatory treatment It is only after the operation that he wants the bladder to be washed out with "mild antiseptics" But whenever antiseptics are required, it will certainly be inopportune to use them in a '*mild form*" In a wound of the urinary tract phenol water of at least 2½ to 3 per cent ought to be freely and frequently used, especially in the presence of decomposed or alkaline urine, where the latter could not first be made acid Bigelow himself states that "The deep urethra be even less tolerant to injuries, and that he had even lost four such cases by death" The wound of an organ which, under the scrupulous attention here given, promises almost absolute security against any serious or fatal issue! But if Bigelow thinks that "strips of the mucous membrane of the bladder might be turned off with immunity," he will be greatly mistaken in case any of those fearful complications as a "surgical kidney" or chronic cystitis, or an alkalinity of the urine even, should be present The important question about the chemical composition of the urine, as well as the danger arising from the setting free of certain micro organisms enclosed in a stone by even the least lithotriptic efforts, seemed to have entirely escaped him All that Bigelow has to say about that important liquid, the urine, is that "a most troublesome condition to be met with consisted in the presence of a certain mucous substance causing tenesmus, and which could not pass through the catheter"

Chronic Cystitis —This dreadful disease has already been mentioned on several occasions, associated with and without a simultaneous affection of the kidneys, as pyelonephritis, etc It happens more frequently in people of an advanced age, with and without the presence of a calculus It is a very resisting evil and is accompanied with a good deal of pain In most cases there exists an enormous increase of the prostate, sometimes with retention of urine The latter is muddy, and of neutral, or oftener of an alkaline reaction, and the patient has a constant desire to empty the bladder, but with an inability of discharging its contents The best method of treatment here consists in frequent introductions of large metallic catheters every three or four hours and injections of warm water containing one-half per cent to one per cent of sulphate of zinc, of a weak solution of acetate of lead, or frequent irrigations with 3 per cent phenol water, also the internal use of an alkaline mineral water

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[1] Simon, in an essay of his alluding to a publication of mine, called me "the only representative American who had dispensed with the catheter but at the same time considered it strange that I (at that time) still hesitated to give that instrument up for good Simon was misled by a statement which had only reference to a special case It was evident that he had mistaken the sense of the statement still I did not consider it of sufficient importance to correct the error into which he had fallen

The strictures which are observed, are frequently of a spasmodic character, without the least sign of an existing inflammation But chronic cystitis may also be complicated with real and constant strictures of the urethra In such cases I have observed external urethrotomy (Boutonniere), with a subsequent introduction of a short, straight metallic catheter kept in the bladder for some time, of great value, yet I hardly think that a better treatment could be selected I have performed the "Boutonniere" sixteen times, and in some of the cases had as many as six and eight strictures, accompanied with abscesses and fistulas, on and around the scrotum In several of these cases hardly the finest bougies could be passed through the urethra In one of these cases there were eight abscesses with four fistulas, comprising the scrotum and its surrounding parts What influence an incision into the urethra exercised upon the dilatation of that organ could be experienced here by entering the largest bougies, where previously only the smallest were with difficulty introduced In some cases the metallic catheter was retained six weeks till the last fistula had healed Where of late, irrigations with phenol water were frequently used, I in former times was in the habit of injecting and washing out the bladder with chamomile infusions, adding borax or benzoic acid, and occasionally in aggravated cases a strong solution of nitrate of silver 1 to 8 Serious as some of the sixteen cases had been, not a single one was lost by death [1]

Renal Calculi Passing Through an Ureter —The most dangerous and pain-causing renal calculi are those which, be it by their large size, form, or shape, in passing through one or another of the ureters become arrested there or implanted They may lacerate the mucous membrane, causing inflammation, abscesses, and produce symptoms resembling the most intense, violent colic Such an abscess may, in breaking through the wall of the ureter, discharge its pus into the abdominal cavity and cause death under the symptoms of marasmus, a case of which I once witnessed Such renal calculi may also be arrested in the urethra, produce a local inflammation with its sequelæ, involving even the cellular tissues of the scrotum and the penis

I once observed such a calculus passing through the left ureter of a woman, and which passage lasted three weeks, causing an almost constant but moderate "colic," which of course did not yield to medication The woman being pregnant at the time, the pain was first wrongly interpreted Nevertheless, suspicion being aroused, I ordered her to yield her urine exclusively in the urinal and pay attention if no stone should come away One day she heard some hard substance drop into the vessel, which proved to be a smooth, oblong renal calculus, measuring 10 mm in length and 6 mm in width From the time of the stone's discharge all pain subsided Small as the channel of an ureter is, its muscular fibres are, like those of the urethra, of great extensibility and powerful contractility, ejecting the urine with a great force at times In two cases of vesico-vaginal fistulas with an everted bladder, I observed the urine to be discharged alternately from both ureters in solid streams and at considerable distances

A three years old boy was one day brought into my office suffering from enuresis and intense pain in his over extended bladder, while his mother stated that previously the boy had suffered from "a mighty pain" in his left side, which had lasted over a week Entering a catheter into the meatus urethræ, I met with a hard substance behind the glans penis, well implanted in the mucous membrane Removed with a small metallic earspoon, it turned out to be a renal calculus of uric acid The urine was muddy, alkaline, and contained pus Some blood followed the extraction of the calculus I injected a 3 per cent solution of phenol into the bladder and urethra, ordering the latter to be washed out frequently No serious consequences followed I place some weight upon this, because I saw another such case where the calculus had perforated the urethra after obstructing the same for some time, and where no antiseptics had been used, ending fatally The history of the boy's ailment, first given, left no doubt that here again a renal calculus had been temporarily arrested in its left ureter, and finally had become implanted in the passage through the bladder in the urethra, where, forming an abscess, it would soon have perforated the urethra By the constant irritation the calculus had caused in the urethra, the boy had fallen into the habit of pulling the prepuce to a length of 4 ctm (1½″), which called for circumcision

One of the greatest agonies and sufferings I ever have observed was in a man of forty, with a calculus implanted in his left ureter (Was it but accident that all the cases which came under my observations happened in the left ureter?) At several times on entering his room I found him lying on the floor, which showed the impression of his finger nails That painful condition lasted five days, during which time he had almost constantly to be kept under the influence of chloroform and morphine

Urinary Concrements —Calculus in the human bladder, excepting those of phosphatic salts, is of rare occurrence in the city of New Orleans, as far at least as the stone's origin is concerned The printed reports of our Charity Hospital of ten years from 1871 to 1881, with over 55,000 patients, do not mention more than five cases of "stone in the bladder," two among the whites, three among the colored people (Though I am constrained to say, that great reliance cannot be placed upon these hospital reports, which at that period, at least, had been made up in a very loose and unsatisfactory manner for proper statistics)

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[1] It is known that phlebitis and pyæmia have often followed neglected or badly treated cases of chronic cystitis There has lately (1881) arrived in this country from France a certain Dr Declat, who in some enthusiastic manner, proclaimed his ability to cure pyæmia with his never failing preparations of carbolic acid which he applied internally and in subcutaneous injections, and in quite large doses He also claimed the priority of the aseptic treatment, calling Lister a plagiarist If this new Messias of antisepsis would exchange the role of the alchemist and make known his wonder doing compositions he would act with more propriety and becoming a professional scholar earning a greater reputation and with more "eclat" if his assertions should prove to be true, than at present where no conscientious physician or surgeon will make use of his patent medicines, in having no other guarantee but the doctor's mere assertions and his own puffing for notoriety's sake

During a practice of thirty-two years in this city, I have operated on fifteen cases of stone and have assisted in six of others All the cases happened among whites With the exception of the children to the number of five, none were natives of the soil

From the frequency of the disease in certain countries or localities, there can hardly exist a doubt that some geological elements, or conditions of the soil, have to account for the frequency of these concrements, at least so far as those are concerned which originate in the kidneys, whilst calculi originate in the bladder, the phosphatic stones may happen anywhere, their formation depending from causes and conditions unconnected with clime, soil, or food In Germany, near the river Rhenus, where a great deal of sour wine ("Maselwine") is consumed, lithiasis is almost unknown, whilst in other parts of that country stone in the bladder is a most frequent ailment It would no doubt be of great interest to solve the question to what elements the frequency of the disease has to be attributed

The chemical composition and physical character, such as size and form of the calculus are important factors, the knowledge of which will in part direct the action of the surgeon, in the selection of the method of operation for the stone's removal With regard to the nature of the calculus, which equally plays a role here, we may discriminate between two classes of calculi, *renal* and *vesical* In one class, the calculus may cause a disease of the bladder, in the other the disease may produce the calculus, in one the disease ceases with the stone's removal, whilst in the other the disease remains and affords a separate treatment Among the compositions of the different calculi we have *uric* and *oxalic acids*, and its salts, besides *phosphates* The latter are most frequently met with in concrements which have their origin in the bladder, or form to a great extent the outer shell of renal concrements

Dr R Ultzmann, of Vienna, Austria, classifies the urinary concrements in two groups In the first he counts the *urates*, *earthy phosphates* and the *cystin* stones, which if free and not enclosed in diverticles present a type of three diameters In the second class he enrolls the *oxalates* with a type of two diameters The author views these concrements as a crystallization en masse, asserting that these diverse elementary bodies, even in such a mass crystallization, preserve their characteristics, according to which *uric acid*, *cystin*, and the *phosphates* present the three axes, belonging to the *rhombic system*, while the *oxalate of lime* belongs to the *quadratic system* (The concrements so very rare as the xanthin, indigo and urostealith he has not mentioned)

Ultzmann compares the urine with a mother liquid, out of which uric acid will be precipitated, if there is more of it in the urine than it is capable of keeping in solution, or, if too much free acid has been formed The respective concrements here have to be considered as diagnostic signs of importance But what is also, and not of minor interest and import to the practical clinicist and physiologist, is his method common to the geologist and mineralogist, of grinding the concrement to such an extra thinness that it can be examined under a reflecting light by the microscope Thus has Ultzmann originated the doctrine of the *microscopical physiography of the urinary concrements* These grounded stone segments present not agglomerations, but real mass crystallizations subordinated to the crystallographic laws, and the results obtained by the author have confirmed the correctness of his views of the origin of these concretions in the urinary tract Every crystallization inculcates the presence of a mother liquid inside of the urinary apparatus These conditions are fulfilled if the urine contains an abnormal mixture of too much acid, or alkali of too much uric acid, etc Under these conditions the concrements originate either already in the kidneys, or directly in the bladder

Detection and Recidives of Calculi —Small calculi in a full bladder are often difficult of detection, and if detected, the catching of them may be still more difficult Exceptions to these facts, as for instance of the distinguished "stone-cutter," Sir H Thompson, who, as he himself tells us, finishes the whole operation of lithotripsy, from beginning to end,—catching, crushing and evacuating the fragments,—all in the average of six minutes, are rather rare specimens of an uncommon dexterity! It affords a great *tactus eruditus* of a surgeon's fingers in exploring a bladder to detect by palpation a small calculus, and the ears, if laid under contribution, to hear the sound of striking a concrement with a bougie or catheter, have to be not less acute Quite different, besides, will it be if the calculus should be enclosed in a diverticle of the bladder In such an eventuality it may remain and grow till it finally becomes detached by its own weight One of the best pathognomonic symptoms of the presence of a calculus, if not enclosed in a diverticle, consists in the instantaneous arrest of the flow of urine in the act of being discharged, though it is not so very rare that its presence may escape the detection of both the patient and the surgeon

In detecting a calculus with the help of the endoscope and the electric light, I have no experience, and I believe that a calculus in no other way discernible, can hardly cause sufficient trouble to require such a fashionable contrivance

Recidiva of Calculi may happen after any operation for stone, be it cystotomy, lithotripsy or urethrolithotripsy, though it may be difficult to say after which method it has happened more frequently Thus Lisfranc has repeated the operation of cystotomy twelve times on the same patient, Civiale seven times, Benno Smith and Weigmann have collected

155 cases of such recidiva following most all the operations of cystotomy, sufficient proof that it is not always the fragments left behind in the operation of lithotripsy which can be accused of the reappearance of calculi after that operation. It rather seems to be a certain disposition of the system which causes these recidiva, and against which, so far, no treatment has been found to be of any avail. The frequent return of such concrements after cystotomy ought, therefore, to caution against a hasty reproach of the operation of lithotripsy on account of fragments left behind, and which, at the same time, would imply an unjust accusation of the operator. The etiological elements of such recidiva may, indeed, be manifold. Thus the concrements may be formed in the kidneys and be from there transferred to the bladder, where they continue to grow, or an alkaline condition of the urine, whereby a precipitation of insoluble phosphates "*placages phosphatiques*" may follow. They may also follow from fragments left behind in an operation, or from pieces broken off during the extraction of a calculus, or from pieces of a broken catheter or bougie, or from sharp pointed foreign bodies which have entered the bladder from some interior parts, from fragments swallowed by accident, such as pins, nails, needles, which have come into the bladder through the urethra, as is occasionally the case with children, also, from blood coagula, from an over distension of the bladder with urine, from paralysis, hypertrophy of the prostate, or strictures of the urethra, etc. All these manifold factors may, at one time or another, be the cause of the formation of a calculus, with a foreign body as the nucleus. Vesico vaginal fistulas have also been mentioned among the causes of stone. One such case came under my own observation, where a fistula and stone existed together, but here it became more probable that the stone was rather the cause of the fistula, and not the fistula the cause of the stone, and its nucleus proved that it had its origin in one of the kidneys. During the delivery of the woman the presence of the stone had been overlooked, and no doubt became the cause of a partial gangrene of the bladder and vagina, causing the fistula. The nucleus consisted of uric acid and the outer parts of phosphates. The stone had the size of a large pigeon's egg.

APPENDIX

VESICAL CALCULI IN THE URINARY BLADDER OF AN HYPOSPADIAS—A SURGICAL CURIOSITY.

Above I have named different foreign bodies which occasionally might be met with in the urinary bladder of man, forming the nucleus of certain concrements, but seldom, if ever before, has a surgeon come across a case in which the nucleus of a concrement consisted of so singular an object as in the case under consideration.

The subject of this interesting narrative was a musician, about 45 years old. A congenital deformity which stamped him an hypospadias, with the urethra of the pendulous portion of the penis left open, the latter organ presented a *membrum virile cum impotentia generandi et coeundi*. That penis reminded me of an operation said still to be performed by the inhabitants of some of the islands of the South Sea, as also among the Australians and Esquimaux—people who, in regard to culture, stand probably yet at the same prehistoric footing as the so-called *neolithic period*. I say it reminded me of what these Australians call the *mica operation*, which consists in cleaving the lower wall of the urethra for the purpose of producing sterility, and which operation they perform with a stone knife, a piece of flint they sharpen, and with which they are said to perform also laparotomy and even trepanning.

The morphological interest in our musician's case was heightened by the fact that with the urethra left open to the root of the penis from the first period of fœtal life, that membrane had grown to an extraordinary large size and length, measuring in its relaxed condition 14.5 centimetres (near 6″) in length. The opening at the root of the penis was not larger than 8 mm. in diameter, and that opening, which corresponded with the locality of the caput gallinaginis, proved the man's misfortune. Through that opening our musician had been in the habit of playing with the cork of a wine bottle, "*pour saulager la nature*," est modus in rebus, and as none are so daring as those who have long been accustomed to place their dependence on their own exertion—it being the distinct mark of genius, that it lights its own fire—our prestidigitator one day in thus pursuing the even tenor of the way of his Anacreontic desires, in playing a fortissime experienced on himself the truth that "what is considered happiness to-day may get misery to-morrow," and, like the pitcher that goes constantly to the well, is likely to break at last, so the cork, escaping once his fingers, vanished between wind and water to that bourne whence no traveller ever returns, except it be by the hand of the sympathizing surgeon.

It is properly said that "a rolling stone gathers no moss," but a rolling cork in a vesica urinaria may gather phosphates and become an annoying peregrinarian calculus. Hugging the delusive phantom of hope to play himself the successful accoucheur, our musician had at various times tried, by introducing wires, tape, fiddle strings, etc., to get hold once more of the fugitive stopper, but frustraneously. He finally discovered how truly Rabelais had said, that "the attempt to run a wind-mill by the wind squeezed out of a dead ass, be a futile enterprise of an impracticable genius," and he came to the conclusion that a good musician might turn out a very poor surgeon. He felt some embarrassment to acknowledge his foolishness. But as the man who tells one lie will have to tell a dozen more to sustain the first, he was soon caught in his own net, and forced to make a full confession.

The operation was decided upon. When the patient was under the full influence of chloroform, I succeeded, in an easy manner in extracting, with a calculus spoon, entered through the natural opening, the incrustated cork. But, from its size, no doubt could exist that another and even a larger piece was still behind. Entering the instrument again, that piece was soon grasped and brought to the entrance of the opening But it was impossible to extract it in that manner, a forceps and the percuteur were both tried, but with no better result The cork could not be compressed nor crushed, therefore the opening was enlarged with the long knife of Vacca Berlinghieri, the incision being made towards the neck of the bladder, when, with a forceps, the other piece came away quite easily Both pieces were thickly incrustated No doubt, by his efforts to get the cork out the musician, in using the wire, had cut the soft cork in two The operation was not followed by any untoward symptom, after the bladder had been well irrigated and washed out The patient was not even confined to bed for a single day Who was happier than our fiddler, when once more he held his dear and unlucky cork in his hands? A proposition of doing away with the tempting opening in restoring a normal channel he nevertheless refused I never saw him again

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BRIEF NOTES OF THREE CASES IN WHICH PREMATURE LABOR WAS INDUCED

BY AUGUSTUS P CLARKE, M D , CAMBRIDGE, MASS

Read before the Cambridge Society for Medical Improvement Dec 22, 1884

In one case where the woman was seven months pregnant, and where premature labor was urgently demanded, I used a carbolized sponge tent This was left in for twenty four hours, when it was removed and a second one for the same length of time was introduced I also used a third tent, well carbolized After the removal of each tent I disinfected the parts with a 2 per cent solution of carbolic acid After the use of the third tent, labor pains began at irregular intervals, and were assisted by digital dilatation of the os uteri On the fourth day the fœtus (male) weighing six pounds, was expelled alive, and it survived, and the mother, though suffering from some symptoms of septicæmia, recovered, but was unable to nurse her child, owing to the want of a sufficient quantity of milk This lady had been married some ten years previously The first time I met her was when I was called to assist Dr Chas H Allen, formerly of this city, in her delivery The doctor had been with her for the most part during thirty-six hours, and although the os uteri was well dilated, and the long forceps could be applied, yet we found it quite impossible to extract the child without resorting to the operation of perforating the head, and even after this was done, we had great difficulty in bringing down the shoulders After the placenta was removed, we found that the conjugate diameter of the pelvis was hardly 2½ inches There was a marked distortion of the right ramus, thus lessening the iliac diameter, besides, the tuberosities of the ischia more closely approached each other than in a normal case At that time, 1869, we were both satisfied that our patient was unable to bear a living child at full term, and the matter of the induction of premature labor in a subsequent pregnancy was considered Some three years later I was again called to this patient, who was again in labor for the second time The os was dilating and the pains were frequent and strong, but no descent into the pelvic cavity took place I succeeded at last in accomplishing her delivery, but the child had to be sacrificed as before In June, 1874, I was again consulted by this lady, who was about five months pregnant The patient was otherwise in good health Ballottement could be distinctly felt I then advised my patient not to allow her pregnancy to continue to full term, but to submit to the chances of a premature labor induced at seven months Accordingly, on August 15 (1874) following, she submitted to an operation resulting as above detailed Soon after this her husband died, and my patient escaped further dangers of a married life

The next case to which I was called was that of Mrs. E , a Scottish lady aged twenty eight years She was delivered at the age of twenty four years of a stillborn child, before she emigrated to this country She said her labor was a tedious one, and was terminated with instruments and by the inhalation of chloroform. After coming to this country, while in New York city, she miscarried twice Her uterus was sharply anteflexed, and she suffered more or less from dysuria This was in October, 1877 September 1, 1878, I was called to attend her in labor at term The presentation was normal and of the first position The labor was unusually prolonged, owing to the narrowness of the pelvis The conjugate diameter was scarcely 2¾ inches, and the iliac diameter seemed insufficient for the exit of a living child at full term There was a contraction at the outlet of the pelvis Forceps were applied, but the child was stillborn The patient made a rapid recovery Eight months afterwards she became pregnant, May 1, 1879 I advised her as in the case of the other patient, not to allow the pregnancy to continue longer than seven months Dec 1, 1879, I inserted a sponge tent into the os uteri, this was followed by a chill and afterwards a good deal of constitutional disturbance The tent was removed after the lapse of twenty-four hours, and I waited until the third day, when I applied another carbolized sponge tent This brought on the same constitutional disturbance, but on the fourth day some fugitive pains occurred, and I resorted at intervals to digital dilatation The fœtus was born on the evening of the fifth day, but it was feeble, and it died on the third day after its birth The mother suffered a good deal from what appeared to be septicæmia, evidently superinduced by the application of the sponge tents The patient finally recovered

In another case of narrow or contracted pelvis, where the conjugate diameter did not exceed 2¾ inches, and in which I determined to induce premature labor, at about seven and a half months, I used a medium sized (No 14, French scale) olive tip bougie, introduced carefully while the patient was in Sims's position The bougie was introduced without rupturing the membranes, and passed across the fundus of the uterus in a spiral or curved direction, and then left for twelve hours, when labor supervened The labor was completed in six hours, and the infant was alive and did well. The mother made a good recovery. This case occurred in October, 1880. The mother was aged twenty seven years, and had been married six years. She was delivered of a child (female) stillborn, at Boston Highlands, Oct. 27, 1876, and another, stillborn, at Worcester, Mass., some two years afterwards. It was from her husband and from her physician, the late Dr. Henry Clarke, of Worcester, that I learned the circumstances of her delivery.

The plan of inducing premature labor by the introduction of a flexible gum elastic bougie, reported in the *Retrospect*, No. 71, p. 190 (by John C. Lucas, Esq.), is evidently a safe and easy method. My experience in the use of sponge tents, even when thoroughly carbolized, for dilating the cervix for any purpose whatever, is unsafe and often leads to irreparable mischief. For a long time I have abandoned their use altogether. The use of a flexible gum elastic bougie is more scientific. The bougie is cleanly, its presence in the uterine cavity, across the fundus, after a few hours, will often excite healthy and normal uterine contractions. And in any case where any unpleasant or any constitutional disturbances arise from its presence, it can be readily removed by the attendant, or the patient herself, before alarming or serious symptoms supervene. The bougie is also applicable in cases in which it is desirable to induce abortion for the relief of obstinate vomiting of pregnancy, that sometimes threatens the life of the patient. I have used it for such a purpose, and have found it a most valuable means of emptying the uterus of its contents. Digital dilatation, when carefully and judiciously practiced, is also a most valuable means in any case where the emptying of the uterus is urgently and speedily demanded.

An important consideration in a case where the induction of premature labor is required, is to ascertain when the time has arrived beyond which pregnancy should not continue. This can only be decided by a careful consideration of the whole history of the case. From my experience in the above cases, as well as from my general obstetric practice, I would state that in no case should the induction of premature labor be undertaken until after a most thorough study or knowledge has been gained of a previous pregnancy or pregnancies, for it is absolutely impossible to obtain any definite and reliable knowledge relative to the dimensions of the pelvis until after labor is well advanced or immediately after it has been completed.

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY.

CONGENITAL ABSENCE OF THE LEFT LUNG.—Dr. E. Theremin (*Rev. Mensuelle des Maladies de L'Enfance*) gives two cases of this occurrence, which is so rare that it has never been determined in the living subject, and out of thirty thousand autopsies made in the past twenty five years at the Maison des Enfants-Trouvés, at St. Petersburg, only these two cases were noted. The first case lived for eleven days, and died after symptoms of fever, accelerated respiration, dullness on percussion, bronchial souffle, and disseminated sub-crepitant râles. The body appeared normal in structure and conformation, except a rudimentary development of the eyeballs. The autopsy showed intense hyperæmia of the brain, hyperæmia and nearly complete hepatization of the right lung, hyperæmia of the liver and spleen. The second case lived from February 9 to May 17, over three months. Cyanosis was present from the first, but became in time very little marked and not constant. The heart was considered as normal; a slight cough called for an examination of the chest, when mucous râles were heard over the right and *left lungs*—nearly complete dullness on percussion over the left lung—later on in life fever set in, with signs of pneumonia of the right lung, marked cyanosis and death. Nothing abnormal was found in the autopsy as regards the other organs and tissues of the body, in structure or conformation, except what will be referred to.

In comparing these two cases great similarity is seen in the anatomical disposition of the lung, of the heart, and of the circulation of the blood. In both cases there was a little cartilaginous enlargement in the position of the left bronchus, one single pulmonary artery, and one single pulmonary vein, which communicated with the vena azygos, and thence with the vena cava superioris. In neither case did the left auricle receive any pulmonary vein; the foramen ovale and the canal of Botal were narrowed or obliterated. The unique right lung, greatly developed and incompletely divided into lobes in the second case, gave an arterial blood, which, mixed with the venous blood, produced a constant cyanosis. The large caliber of the venæ cavæ and pulmonary artery, and the hypertrophy of the right auricle and ventricle, contributed to the increase of the intensity of the general cyanosis. Both children were small, and badly nourished from their birth.

The notes taken during the life of these children, by two different physicians, show that the vesicular respiration also extended to the left in the posterior portion of the thorax, and prove that respiratory murmurs of one side may extend to the opposite side, in cases where the propagation is favorable.

MATERIA MEDICA AND THERAPEUTICS.

ON THE RARER ACCIDENTAL EFFECTS OF SALICYLATE OF SODIUM.—Under this title Dr. J. Dreschfeld gives, in the *Medical Chronicle*, the details of a case of a female patient, æt. 18, suffering from nephritis, after an attack of diphtheria. For five days of her treatment for this affection, she was given salicylate of sodium, ten grains three times daily. On the third day the temperature suddenly rose from 97.9° (axilla) to 103°, pulse from 75 to 120; there was severe headache, drowsiness, dry and brown tongue, nausea and vomiting On the fourth day the patient was worse, with pain in the left lumbar region, and enlarged spleen, on the fifth day vomiting had become incessant, great dyspnœa, temperature 103 8°, pulse 130, thready The salicylate was now stopped and 15 grains of quinine given, and in a few hours the temperature became normal, and the bad symptoms abated Three days later the salicylate was renewed in doses of 10 grains every four hours, in twenty four hours' time the temperature had again risen to 103 4°, with headache and drowsiness, increase of splenic dullness, but no vomiting, and a marked erythematous rash appeared on the face, chest and arms, with some swelling of the face The drug was stopped, and these peculiar symptoms disappeared in a few hours Again some days later, an erythematous rash appeared all over the body, the face, arms, and legs being very œdematous, the lips also much swollen, the temperature rising to 101°, pulse 100, respiration 28 The urine being tested with perchloride of iron, a distinct salicylic acid reaction was obtained These symptoms also subsided in a few days, and it was assumed that the night nurse had given a dose of salicylate by mistake A week later, in order to confirm this suspicion, 5 grains of the salicylate were given at two P M The patient's temperature was then normal, the tongue was clean, pulse 72, respiration 18 At three P M (one hour later) the patient had a rigor, temperature 100 2°, pulse 120, respiration 39, with great dyspnœa and oppression The patient was drowsy, her face dusky, and her lips bluish At 6 30 P M, temperature 101 4°, respiration 36 A marked erythematous rash was seen on the face, back of arms and forearms On the following day patient feels again much better The temperature is normal, pulse 75, respiration 18, the rash is disappearing

There can be no doubt, then, that the symptoms above detailed were due to the salicylate of sodium (more than twenty patients in the hospital were taking the drug at the time, from the same stock) It is curious to notice that the idiosyncracy against the drug increased with each successive administration, for whilst, during the first administration, the symptoms only came on on the third day, in the last we found the patient's temperature had already risen three degrees an hour after the administration of 5 grains Again, it will be noticed that the symptoms were not always the same—the rash was scarcely perceptible during the first attack, the sickness was absent during the third attack, the dyspnœa chiefly marked during the first and last attack, whilst a rigor appeared in the second and fourth attack Immediately after each attack the patient passed some urine, which contained some urea

In his comments on his case Dr Dreschfeld finds four cases in medical literature where the pyrexia was well marked, but only in one of them does he find erythema to be present That we have to do with vaso-motor phenomena is evident from the erythema, the œdema, and the profuse sweating Experiments on animals have clearly shown that salicylic acid and its allies act on the vaso motor centre A rise of temperature has also been noticed in experiments on animals Skin eruptions without pyrexia seem to occur more frequently as an accidental effect of salicylate of sodium He cites a case of articular rheumatism, where fifteen grain doses, three times daily, soon produced well-marked urticaria, on discontinuing the drug the urticaria disappeared, but reappeared upon its resumption, although it was much less troublesome A lady after using a vaginal injection containing salicylic acid, was affected with erythema nodosum, which persisted for more than four days, and affected also the lips and mucous membrane of the mouth The lady herself at once ascribed the effect to the drug, as on a previous occasion, the use of salicylate of sodium for rheumatic pains had produced in her exactly the same symptoms This leads him to infer that the complication of erythema nodosum with acute rheumatism, may in many cases be due to this drug The dyspnœa may form the most prominent feature, and may even lead to a fatal issue He notes two cases where he has observed it—once in phthisis and once in rheumatic arthritis The dyspnœa resembles very much that seen in diabetic coma The number of respirations is not increased, and may even be diminished, but there is an excessive craving for air, the pulse becomes small, and frequently the temperature shows no alteration Experiments on animals show that the influence of salicylate of sodium on respiration is very similar Small doses increase the respiration, large doses produce marked dyspnœa, often with diminished respiratory frequency, and eventually death seems to be caused by paralysis of the respiratory centre

ON ABSINTHINE —Dr Fernand Roux (*Bulletin Gen de Therep*) has found that the common or great absinthe, artemisia absinthium, contains in its bitter principle, absinthine, certain properties that are not toxic and that are of therapeutic value To determine its degree of toxic effect he gave the drug in small doses for a long continuous period of time, and then in large doses, experimenting upon chickens, coming to the following conclusions 1st, Absinthine is not toxic in its effects even in a strong dose (2 grammes in a chicken) This result disagrees with the opinion of most authors 2nd, Its prolonged use in small doses does not give any disagreeable symptoms, 3rd, It seems to have a favorable effect upon the bowels without inducing diarrhœa, when given in moderate doses

To illustrate its therapeutic effect, Dr Roux gives the details of seven cases, which lead him to the opinions

1st Absinthine as obtained by the process of Duquesnel, the bitter principle of absinthe is not toxic

2nd Absinthine is a drug which is useful in chloro-anæmia, convalescence from serious diseases which have weakened the digestive organs, and anorexia without organic lesion of the alimentary canal

3rd Absinthine is especially indicated when there exists with anorexia an obstinate constipation

4th The most convenient dose is 10 centigrammes, ten minutes before eating, twice daily

MEDICINE.

ACUTE RHEUMATIC ARTERITIS.—A case which possessed considerable interest and not a little rarity, was narrated by M. Legnux at a recent meeting of the *Sociète Medicale des Hopitaux* (*Lancet*). The patient was a young lady, aged twenty two, whose family history was only characterized by the presence of the arthritic diathesis. In July, 1884, she had a second attack of acute rheumatism, a first having occurred at the age of twelve years, but had left no trace behind it. The rheumatism was of a sub acute character, some joints became painful, rose colored, and a little swollen, but during the moderate fever an eruption of nodose erythema appeared on the front surface of both legs. After the lapse of three weeks the patient went to the seaside, and seemed to improve considerably. At the beginning of August there was quotidian fever, which could only be explained on the assumption of a malarial origin. On the 15th of August there suddenly appeared numbness of the left hand, forearm and arm, soon followed by acute pains and inability to move the fingers or other parts of the limb. When seen by a doctor after these new symptoms, the radial, ulnar and brachial pulse could not be felt on the left side, the limb was icy cold, the hand and forearm were a little swollen, and presented on their dorsal aspect some spots of a rose brown color. Gangrene was feared, but did not occur. The fever, although somewhat abated by the administration of sulphate of quinine, still continued, and after the fresh incident increased once more, the pulse numbered 110 to 120 a minute, the temperature reached 38° to 39° c., and soon præcordial pain, dyspnœa, palpitation, and a murmur of systolic time marked a pre-existing hæmic bruit. The murmur was loudest at the apex beat, but extended towards the base and all over the aortic area. The first diagnosis made by the patient's ordinary attendant was ulcerative endocarditis with embolic thrombosis of the left brachial artery. There was a little tenderness about the left brachial artery. Dr. Charles Hardy, who saw the patient later, suggested that acute rheumatic inflammation of the artery existed because of the nodosities to be felt along the vessel, of the sensitiveness of the vessel, and of the presence of a bruit all along the thoracic aorta. The obliteration would on this opinion have been due to the acute arteritis, possibly starting from the endocardium and aorta. The limb was kept absolutely at rest, the pains were calmed by hypodermic injections of morphia, and small doses of iodide of potassium were administered. Some time after M. Legnux saw the patient for the first time. The cardiac disturbance was then marked by loud bruits, and the action of the heart was so tumultuous that it was almost impossible to differentiate the various factors of this commotion. There was an intense bruit all down the vertebral column, corresponding to the path of the aorta, auscultation over the left subclavian region yielded a loud bruit. There was a tender pulsatile dilatation of the axillary artery, of the size of a large plum. Below the aneurism the brachial artery was to be felt as a hard, fibrous, pulseless cord. The limb was pale, flabby, wasted and motionless, the hand was atrophied, and a deep furrow in front of the lunula of the nails indicated the period at which circulation had been almost completely arrested. A small degree of sensibilty remained. A slight effusion into the right pleural cavity was diagnosed. The ultimate issue of the case is not yet known.

AUTOPHONY.—Prof. Berthold, of Kœnigsburg (*Revue Mensuelle de Laryngologie, Journal des Sciences Medicatise de Lille*), describes autophony as the pathological resonance of the voice of the subject himself, as well as of the respiratory sounds and arterial pulse. It is most frequently caused by a nasal or pharyngeal catarrh of long standing, a catarrh producing an abnormal dilatation of the Eustachian tube, by atrophy of its mucous lining. A contraction of the muscles of the tube, and the retraction of the pharyngeal opening following an ulcer, may also produce the dilatation and consequent autophony.

The symptoms consist of an exaggerated resonance of the voice of the subject himself, and of the sounds of respiration, to which are added many times the sounds of the pulsation of the vessels. As the autophony is often associated with an exacerbation of a chronic naso-pharyngeal catarrh, and to an acute inflammation of the tympanum, the symptoms of these affections are added to the exaggerated resonance.

As symptoms pertaining to autophony, there should be mentioned the painful sensation to the subject which accompanies speaking, coughing or sneezing, as well as the perception of external noises. To these must be added the sensations felt by the patient during inspiration and expiration, while the mouth is closed, as caused by a movement of the tympanum towards the interior during inspiration, and towards the exterior during expiration, a movement which is readily made visible. With these the patient has a sensation of pressure and fullness in the external auditory canal.

If the phenomena of resonance be very marked, they complain also of a crackling noise like the brisk separation of mucous walls. With this is associated a sense or drawing upon the tympanum. External noises seem to be reinforced. The noises of a passing carriage in the street are very painful to the patient. Rubbing the concha of the ear between the fingers is much more readily appreciated than on the sound side.

Prognosis is always favorable, when there is no complication, and when there exists neither atrophy of the mucous membrane of the tube, nor cicatricial formation at its pharyngeal opening. In the majority of cases, after the catarrh, the mucous membrane is eventually completely relieved. Habit, moreover, enables the patient to support the symptoms readily, when once the pain has disappeared.

Treatment is the same as with chronic nasal, pharyngeal and tubal catarrh. Frequent nasal douches of warm salt water and steam are beneficial. Brenner recommends the insufflation through the tube of sulphate of zinc ¼ to ½ p. 100.

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE, INCLUDING POSTAGE
PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any date The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible, remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, JANUARY 24, 1885

ARRANGEMENTS FOR THE NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION —We have assurances that the Committee of Arrangements at New Orleans, of which Dr Samuel D Logan is Chairman, is actively at work making all the necessary preliminary preparations for a large and profitable meeting of the Association in that city, commencing on the last Tuesday in April next The officers of the several Sections are, or should be, actively engaged in securing the preparation of papers and reports for their respective Sections, and are anxious to be furnished as early as possible with the titles of all papers intended by their authors to be presented at the next meeting, that they may be properly placed on the general programme to be prepared and printed by the Committee of Arrangements before the meeting To aid them, and facilitate the correspondence of members, we reproduce the names and postoffice address of the officers of the Association, and of each of the Sections as follows

President of the Association, Dr H F Campbell, of Augusta, Georgia, Permanent Secretary, Dr Wm B Atkinson, 1400 Pine street, Philadelphia, Pa, Assistant Secretary, Dr W H Watkins, of New Orleans, La, Treasurer, Dr Richard J Dunglison, Lock Box 1274, Philadelphia, Pa, Librarian, Dr C H A Kleinschmidt, of Washington, D C, Chairman of the Committee of Arrangements, Dr Samuel D Logan, of New Orleans, Louisiana

Section of Practical Medicine and Materia Medica Chairman, Dr H D Didama, Syracuse, New York, Secretary, Dr G M Garland, Boston, Mass

Section of Surgery and Anatomy Chairman, Dr Duncan Eve, Nashville, Tenn, Secretary, Dr T B King, Allegheny, Pennsylvania

Section of Obstetrics and Diseases of Women Chairman, Dr R S Sutton, Pittsburgh, Penn, Secretary, Dr R T Jelks, Hot Springs, Ark

Section of Ophthalmology, Otology and Laryngology Chairman, Dr J A White, Richmond, Va, Secretary, Dr Eugene Smith, Detroit, Mich

Section of State Medicine Chairman, Dr E W Schaufler, Kansas City, Mo, Secretary, Dr J N McCormick, Bowling Green, Ky

Section of Diseases of Children Chairman, Dr J H Pope, Marshall, Texas, Secretary, Dr S S Adams, Washington, D C

Section of Oral and Dental Surgery Chairman, Dr W W Allport, Chicago, Ill, Secretary, Dr E C Briggs, Boston, Massachusetts

Committee on Necrology Chairman, Dr J M Toner, Washington, D C

It will add much, both to the pleasure and profit of all who attend the meeting, if the by laws requiring all parties intending to present reports or papers, to notify either the Chairman of the Committee of Arrangements, or the Chairman of the Section in which the paper would belong, at least thirty days before the time of the annual meeting, and that all papers be complete in their preparation, and when presented or read they be passed directly into the hands of the Secretary of the Section or of the Association, could be literally complied with And it takes no more of the time of any member to complete a paper in good order before the time of meeting, than it does to present an imperfect abstract, not of his paper, but of what he intends his paper to be some months hence, when he vainly expects to have more time to write it out There has been too much of this imperfect work in the past, too many papers read by abstract or title and referred for publication, that had no existence at the time, and occasionally one that never gained a visible existence afterward Every member should take pride in doing his work promptly, and doing it well

PERMANENT MEMBERSHIP BY APPLICATION —We stated fully, soon after the last meeting of the American Medical Association in Washington, that the constitution of that organization had been so amended that permanent membership could be obtained without actually attending an annual meeting Any member of a regular State, District, or County Medical Society entitled to send delegates to the National Association, can become a member of the latter organization by simply sending to the Treasurer, Richard J Dunglison, M D, lock box 1274, Philadelphia, Pa, *five dollars* as annual membership fee, accompanied by a certificate signed by the President and Secretary of the State or local Society to which he belongs, stating that he is a member in good standing, and desires to be enrolled as permanent member of the National Association The payment of the five dollars to the Treasurer also entitles him to the JOURNAL of the Association for the current year, during which he becomes enrolled as a member And he will continue his membership and the reception of the JOURNAL, so long as he pays to the Treasurer his annual membership fee, and remains in good standing in the State or local Society in the place of his residence A considerable number of those who took the JOURNAL the first year as subscribers, have made application, as above stated, and are now enrolled and receiving it as regular members of the Association It is desirable that all should do so, who can furnish the required certificate of good standing in the State or local Society where they live

CONGRESS AND PUBLIC HEALTH —Several weeks since we published in the JOURNAL the copy of a bill to establish a National Board of Health, as prepared by the Conference of State Boards of Health, and submitted to Congress soon after that body assembled in December In this issue of the JOURNAL, under the head of State Medicine, we give the full text of a bill for the establishment of a Bureau of Health as a permanent department of the National government The bill has been prepared by Dr O W Wight, of Detroit, Mich , who has devoted much time and attention to sanitary matters and sanitary legislation, and its merits deserve careful consideration

It was introduced into the Senate by Senator Palmer on the 9th inst While it is not probable that the present Congress will do more than to appropriate an extra sum of money to be placed at the disposal of the President for use in case a cholera epidemic should appear, the subject of a permanent National Department of Health is one of much importance Whether it shall take the form of a National Board of Health, or of a Bureau of the Government, is a question which should be fully considered by the medical profession, and for the temperate and intelligent discussion of which our columns are open

BURNING OF THE EASTERN ILLINOIS HOSPITAL FOR THE INSANE —One of the buildings constituting this asylum at Kankakee, Illinois, was burned on the morning of the 18th inst , causing the immediate death of seventeen of the inmates The cause of the fire is stated to have been the too close proximity of pine timbers to one of the furnaces, while there had been no adequate means provided for extinguishing a fire after it had commenced

SOCIETY PROCEEDINGS

CHICAGO GYNÆCOLOGICAL SOCIETY.

Regular meeting, Chicago Gynæcological Society, Dec 19, 1884 The President, Dr H P Merriman, in the chair

Dr W H Byford read a paper entitled, "A Case of Mural Pregnancy " The history of the case was obscure The patient, 28 years old, married seven years, had one child, six years old She supposed she became pregnant, for the second time, in February, 1883 In April she became fatigued, and had hæmorrhages which continued until May 9,—about four weeks Oct 14th, a discharge of yellow fluid, about one gallon in quantity, occurred A putrescent, sero sanguineous discharge followed, continuing three months January, 1884, a large brownish mass, with very fœtid odor, was expelled After this event, menstruation occurred until July In May, she was quite large, and had bearing-down pains She entered the hospital Oct 6, 1884 She was tapped Oct 18, and about four quarts of thick, tenacious fluid, resembling the fluid of an ovarian cyst, was removed This fluid coagulated on the addition of nitric acid and on boiling Assisted by Dr. R Tilley, a microscopical examination was made, with negative results The ' Drysdale " cell was not found Laparotomy was performed, and a fœtus with placenta was removed without hæmorrhage or difficulty In order to secure perfect drainage, it was considered best to remove the uterus The operation was performed on Oct 30, the patient did not react, but died within twenty-four hours. Prior to the operation, the patient was extremely reduced by her protracted sufferings Dr Byford, in a similar case, at the present time, would elect the vaginal operation The specimens removed from the woman were exhibited as supporting the diagnosis of mural pregnancy

This was the second case of mural pregnancy that had come under the reader's observation within a period of five years The first case was reported to the CHICAGO GYNÆCOLOGICAL SOCIETY, some time ago The patient was in labor and moribund when Dr Byford saw her She had been in labor until exhausted There was no difficulty in making a diagnosis The head was low down in the pelvis, almost on the perineum The *os uteri* was well-nigh inaccessible behind and above the symphysis The body of the uterus, somewhat enlarged, could be felt in the lower and anterior part of the abdomen, attached to the tumor containing the fœtus The fœtus could be felt through the abdominal walls, surrounded by a thick involucrum, apparently as thick as the uterine walls Fœtal extremities could be distinguished When dissected, the sac in which the fœtus was contained, was found to consist of a thick layer of muscular fibres These fibres were directly continuous with those of the uterus The tubes and ovaries lay on either side of the lower portion of the sac The fecundated ovum had made its way down the tube, become lodged in a diverticulum in the uterine wall, and was gradually extruded into the cavity of the abdomen The fœtus was thus developed within the uterus, though not within the uterine cavity The resemblance to normal pregnancy is great in the presentation and position of the fœtus, deep down in the pelvic cavity, behind the vagina The head, in this case, was fixed by the concentric contraction of the uterine fibres by which it was surrounded, and could be easily outlined as it lay there covered by the posterior vaginal wall

The specimen presented is much less perfect than the one described, because of the numerous effects wrought upon it during the great length of time it remained in the maternal body, and the mutilation consequent upon enucleation

The treatment of these cases ought to be considered apart from that of extra uterine pregnancy at term It is always a matter for special consideration, in connection with each case as it presents itself, whether or no the removal of the fœtus at term, in extra uterine gestation, should be attempted The dangers of laparotomy are greatly increased by the inability to remove the placenta The surface to which it is attached has no contractile power, so that the divided vessels are left patulous If hæmorrhage does not immediately prove fatal, the blood is a source of sepsis that must almost certainly destroy the patient Laparotomy would more likely prove successful, if performed some days after the birth of the child In these cases of ectopic or interstitial uterine pregnancy, the fœtus may be easily removed through the vagina An incision made through the posterior vaginal wall would completely uncover the presenting part, and enable one to apply the forceps or attack it with the perforator and crotchet, as in ordinary labor After the removal of the fœtus, the placenta should be allowed to separate spontaneously

Since writing this report, Dr Byford has seen a case reported in the *Annales de Gynæcologie*, July 1884, occurring in the practice of Mr Matheson, of England, illustrative of the execution of this plan The case was reported to the London Obstetrical Society under the title, "Extra-Uterine Pregnancy, the Extraction of a Living Fœtus Through the Vagina" The child was slightly asphyxiated, but survived A sponge saturated with perchloride of iron was introduced into the sac, after removal of the placenta The mother recovered It would seem that the author did not suspect his case to be one of interstitial pregnancy During the discussion that followed, only one of those present expressed the opinion that it was of that variety Mr Griffith thought it was either interstitial pregnancy, or one in which the fœtus was developed in one portion of a double uterus

DISCUSSION

Dr Edward Warren Sawyer thought that interstitial pregnancy meant the development of the ovum in the uterine portion of one of the tubes In Dr Byford's case the uterine portions of the tubes were not involved It reminded him of a case he had seen near Denver In this case a secondary uterus, with muscular walls, had been developed, but as the tubes were not involved he did not feel justified in designating the case one of interstitial pregnancy

Dr D T Nelson said, with reference to the treatment of the placenta, that Dr Byford's advice was that usually recommended in the text-books The placenta should be left alone in those cases in which the walls of the secondary uterus were not muscular He had seen a case in the museum of the Chicago Medical College, in which no muscular fibre could be detected in the walls When the walls of the adventitious uterus were muscular, it was questionable whether or no the placenta should be left alone If the placenta is removed, there is danger of hæmorrhage, if the placenta remains, there is danger of sepsis When there was reason to suppose that contractions of the adventitious uterus would check hæmorrhage, he thought the placenta should be removed He had no experience in these cases

Dr E C Dudley replied to Dr Nelson Women, in cases of extra-uterine pregnancy, in which the placenta has been allowed to remain, do not die of sepsis He had seen two or three cases in which the sac had been united to the abdominal incision Whenever evidence of sepsis occurred, the sac was washed out, and the temperature immediately fell to the normal The placenta, under these circumstances, is spontaneously eliminated in about three weeks

It required phenomenal powers of diagnosis to tell, in the concrete case, whether or no the sac had sufficient muscular fibres to prevent hæmorrhage The placenta should be permitted to remain within the sac

Dr J H Etheridge thought that if, on microscopical examination, it was found that the muscular fibres of the normal uterus were continuous with those of the adventitious uterus, the case was one of mural pregnancy In cases of abdominal pregnancy, there was a line of demarkation between the normal and adventitious uterus

Dr A Reeves Jackson thought the members of the society were greatly indebted to Professor Byford for the presentation of such an interesting specimen He thought, however, with Dr Sawyer, that the results of the anatomical investigation did not support the author's diagnosis The uterine portions of the tubes were not involved So valuable a specimen deserved very close microscopical and macroscopical examination It ought to be referred to a competent pathological anatomist

Dr John Bartlett thought the ovum had not passed through the tube, but had been developed in the broad ligament, beneath the peritoneum, and had, in this manner, derived muscular fibres from the uterus

Dr W W Jaggard referred to the fact that, next to ovarian pregnancy, interstitial pregnancy was of most infrequent occurrence Up to the present time, about thirty cases, in regard to which the diagnosis was positive, had been reported Interstitial or mural pregnancy included other sites of development than the uterine portions of the tubes Dr Gilbert's case, reported in the *Boston Medical and Surgical Journal*, 3d March, 1877, and alluded to by Professor Lusk in his "*Treatise on Midwifery*," was a case in point The ovum in this case was developed in what seemed to be a bifurcation of the Fallopian tube In Dr Byford's case, the tubo-uterine orifices were not involved The sac was extrinsic to the uterine walls It was probably a case of abdominal pregnancy, in which the ovum became attached to the posterior uterine wall, and derived muscular fibres from this locality The fact that a continuity of muscular fibres from the normal uterus to the adventitious uterus might be ascertained upon microscopical examination, would prove nothing as to the nature of the pregnancy Dr Byford's case resembled that of Janvrin, in which the ovum lodged on the posterior uterine wall and developed in this situation, involving the posterior wall in its sac The specimen was worthy of a more exact investigation, and should be placed in the hands of a competent pathological anatomist

Dr Sawyer said that abdominal pregnancy, with location of ovum on posterior uterine wall, was not at all improbable He then referred to Bischoff's and Leopold's observations and experiments with relation to the "external wandering over of the egg" Beigel had ridiculed this idea It was like a blind man introduced into a large, empty room, with a thread in his hand, seeking to find and thread the eye of a needle, located in some indefinite quarter of the room Notwithstanding this sarcasm, the fact of the external wandering over of the egg was a fact of positive knowledge The egg may pass from one ovary to the opposite Fallopian tube, through the abdominal cavity He thought the specimen exhibited was one of abdominal pregnancy

Dr Dudley thought the fact of the external wandering over of the egg was not disputed at the present time Playfair in his treatise on midwifery, gave a clear exposition of the subject

Dr Charles Warrington Earle said that the fact of external wandering over of the egg was fully recognized twelve years ago

Dr Sawyer said the ovum in abdominal pregnancy might be attached to the posterior wall of the uterus, the mesentery, under surface of the liver, or to other viscera

Dr Nelson made the remark that in both of the cases cited by Dr Byford, *deciduæ* had been cast off by the *uteri*

Dr Jackson said that Frankel was of the opinion that the formation and extrusion of a decidua was a constant occurrence in extra-uterine pregnancy It was pathognomonic of the condition

Dr W H Byford was not surprised that certain members did not agree with him in his diagnosis He thought that in the first case the fecundated ovum passed through the tube, but had found some diverticulum in the uterine cavity, and had passed into the posterior wall, had developed in this region, pushing the wall before it Some of the reasons for this position were as follows

The muscular elements of the sac were directly continuous with the uterine muscle He did not believe that such a muscular sac could develop adventitiously in pregnancy in the abdomical cavity He had seen cases of abdominal pregnancy in which he could detect no muscular fibre The head presentation, down deep in the pelvic cavity, in the direction of the resultant of the forces developed by uterine contractions, supported his view of the case

It is not necessary for the production of mural pregnancy that the tubes be involved He thought there was much in the remarks of Dr Nelson and Dr Dudley In cases in which there was sufficient contractility, it was best to remove the placenta Even under these circumstances it was not absolutely necessary There was no danger in allowing the placenta to remain

Finally, he was very positively of the belief that the two cases referred to in this paper, were examples of mural pregnancy The peritoneum was a boundary line between mural and abdominal or peritoneal pregnancies

Dr Sawyer asked the question Is the peritoneum a boundary line of importance in the macroscopical or microscopical differential diagnosis between abdominal and mural pregnancies?

Dr Jaggard, in reply, said that the peritoneum was no barrier What was the peritoneum? Dr Etheridge, in an article on "Chronic Adhesive Perimetritis," published in a recent number of the *Chicago Medical Journal and Examiner*, had ably sketched the anatomy of this membrane It was developed [illegible] of connective tissue, according to Rindfleisch, [illegible] other distinguished anatomists It offered absolutely no barrier to the attachment of the ovum to the posterior uterine wall, and its development in this situation, with the derivation of muscular element from the normal uterus

On motion, Doctors Byford, Merriman and Jaggard were appointed a committee to select a competent pathological anatomist, who did not belong to the society, to examine the specimen and report at the next regular meeting It was specified in the resolution that the *pathologist should be amply paid for the labor*

Dr Etheridge then exhibited a placenta with calcareous deposits The placenta was removed from the body of a woman pregnant for the first time, who had probably carried the fœtus 292 days The calcareous deposit was probably the result of fatty metamorphosis of the upper layers of the *decidua serotina*

Dr Sawyer said the placenta was interesting, but not uncommon It has been erroneously believed that such *placentæ* are of syphilitic origin He thought the connection with prolonged gestation was established

Dr Dudley referred to the calcareous deposit in the walls of the arteries supplying an ovarian cyst, which he had removed some years previously

Dr Jackson related the history of a case, in which he had removed a mass of calcium carbonate, situated in the recto-vaginal septum, one and one half inches from the vulvo vaginal orifice There was no fatty metamorphosis in this case

Dr Earle thought there was an unreasonable tendency to ascribe such cases to the effects of syphilis Hydatidiform, degeneration of the chorionic villi, and hydrops amnii received a similar erroneous etiology

Dr Etheridge said that the deposits were composed of the phosphate and carbonate of calcium These had an affinity for albumens and fatty acids residing in the cotyledons Similar calcareous deposits were found in the fibroids, thrombi, encysted trichinæ, and in the lithopædia of extra-uterine pregnancy

Dr W H Byford thought the connection between prolonged gestation and calcareous deposits in the placenta, was established He thought that Dr Etheridge would find, on microscopical examination, that the changes had occurred exclusively within the vessel walls

The Society then adjourned, to meet on the third Friday evening in January, at the residence of Dr E C Dudley, No 2317 Indiana avenue, at 8 o'clock

The business of next meeting will be

(1) Report of the pathologist, Dr Christian Fenger, on Dr Byford's specimens

(2) Exhibition of specimens from a double ovariotomy, by Dr E C Dudley

(3) Discussion of certain methods by which the second stage of labor may be rendered easier, by Henry T Byford

W W JAGGARD, M D , *Editor*

2330 Indiana avenue, December 22, 1884

STATE MEDICINE

A BILL TO PREVENT THE INTRODUCTION AND DIFFUSION OF CONTAGIOUS AND INFECTIOUS DISEASES IN THE UNITED STATES, AND TO PROMOTE THE GENERAL SANITARY WELFARE OF THE PEOPLE.

Be it enacted by the Senate and House of Representatives in Congress assembled, that

Section 1 There shall be, and hereby is, established in the Treasury Department a Bureau of Public Health, charged with the execution of all laws passed by Congress relating to quarantine and the public health, and with the framing and execution of sanitary regulations as hereinafter provided The chief officer of the said Bureau shall be denominated the Commissioner of Public Health, and shall be under the general supervision of the Secretary of the Treasury He shall be appointed by the President, by and with the advice and consent of the Senate, and shall hold his office for the term of five years, unless sooner removed by the President, upon reasons to be communicated by him to the Senate, and until his successor shall be appointed and confirmed

Sec 2 There shall be allowed to the Commissioner of Public Health an annual salary of four thousand five hundred dollars, payable monthly, and actual necessary traveling expenses in the performance of his official duties, for which vouchers shall be rendered

Sec 3 The Commissioner of Public Health shall, within fifteen days from the notice of his appointment, take and subscribe the oath of office, for his use the Secretary of the Treasury shall provide suitable offices, and he shall employ, from time to time, the necessary clerks, to be appointed and classified by the Secretary of the Treasury, to discharge such duties as the Commissioner of Public Health shall direct

Sec 4 The Commissioner of Public Health shall appoint, by and with the advice and consent of the Senate, seven superintendents of external and internal quarantine, embracing both infected persons and infected or adulterated goods, for the following districts, to-wit

First One for the Atlantic coast, from the port of Baltimore (exclusive), northward to the boundary line between the United States and the British Provinces, and thence along said boundary line to the intersection of the same with the river St Lawrence,

Second One for the Atlantic coast from the port of Baltimore (inclusive) southward to Key West (inclusive),

Third One for the Gulf coast from Key West (exclusive) to the Mexican border, and thence along the boundary line between the United States and Mexico to the head waters of the Rio del Norte,

Fourth One for the Pacific Coast and the States bordering thereon and the boundary lines as far eastward as the head waters of the Rio del Norte and of the Missouri river

Fifth One for the coasts of the lakes and rivers of the northern boundary of the United States and as far west as the head waters of the Missouri river

Sixth One for the inter-state travel and traffic of all States bordering on the Atlantic ocean or east of the Allegheny mountains

Seventh One for the inter-state travel and traffic of all the States in the Mississippi Valley

The tenure of office of such superintendents of quarantine shall be the same as that of the Commissioner of Public Health Their compensation shall be three thousand six hundred dollars per annum each, payable monthly, and their actual and necessary traveling expenses in the discharge of their duties, for which they shall render vouchers Like the Commissioner of Public Health, they shall take and subscribe the oath of office Their duties shall consist in executing, under the direction of the Commissioner of Public Health, the regulations provided for in the next following section, and to make full reports thereof

Sec 5 The Commissioner of Public Health, aided by the aforesaid Superintendents of quarantine, shall frame a code of regulations for the conduct of the external and internal quarantine of the United States The sole aim and scope of such regulations shall be for the protection of the people against contagious and infectious diseases and against the dangers to life and health from poisonously adulterated goods for the use of the people Such regulations shall conform, as far as practicable, to the local quarantine regulations in the several States It shall be the duty of the Bureau of Public Health to supplement and not to antagonize the efforts of State and municipal boards of health in the work of sanitation Such regulations may embrace provisions for obtaining in connection with the consular service of the United States special information concerning the shipment to this country of infected persons and of infected or poisoned goods and for the arrest of the same before landing Such regulations may also contain proper provisions for the detention and disinfecting of infected persons and goods in transit from one State to another, and for the destruction of goods infected and poisoned to such a degree that no reasonable process of purification can make the same safe Such regulations shall be approved by the Secretary of the Treasury, the Attorney General and the President, and also by the Secretary of State so far as any provisions looking to the cooperation of foreign consuls are concerned, before the same shall become of any validity, but after such approval and after official publication, they shall have the force of law, for the violation of which the proper Federal courts shall take cognizance

Sec 6 The Commissioner of public health shall appoint, by and with the advice and consent of the Senate, an Inspector of the ventilation, draining and plumbing of all buildings belonging to the United States The compensation and tenure of office of said Inspector shall be the same as that of the Supervisors of quarantine He shall also take and subscribe the oath of office The Commissioner of Public Health, aided by said Inspector, shall prepare a code of regulations for the ventilation, draining and plumbing of public buildings, which said regulations, when approved by the Secretary of the Treasury, the Attorney General and the President, and officially published, shall have the force of law, with which all public buildings hereafter constructed shall conform, and when any existing buildings are undergoing repairs, the same shall, so far as practicable, be thereto applied The duty of such Inspector shall be to execute, under his personal supervision, the aforesaid regulations, and to make full reports thereof to the Commissioner of Public Health

Sec 7 The Commissioner of Public Health shall appoint, by and with the advice and consent of the Senate, a Chief Clerk of his Bureau, who shall conduct the correspondence and keep the records thereof, and, during the absence or disability of the Commissioner of Public Health, may be designated by him, with the assent of the Secretary of the Treasury, to act as his deputy, or in case of the removal or death of the Commissioner of Public Health may be designated by the Secretary of the Treasury and the President to act as head of the Bureau till the vacancy is filled The Chief Clerk shall take and subscribe the oath of office, and his compensation and tenure of office shall be the same as that of the Superintendents of quarantine

Sec 8 The Commissioner of Public Health shall appoint, by and with the advice and consent of the Senate, a Public Analyst, who shall make or superintend chemical analyses and microscopical examinations of all substances submitted to him for such purpose by the Commissioner of Public Health, and prepare full reports of the same He shall take and subscribe the oath of office, and his compensation and tenure of office shall be the same as that of the Chief Clerk aforesaid The Public Analyst shall be provided with a proper laboratory, apparatus and instruments, for doing his work well, by the Secretary of the Treasury

Sec 9 The Commissioner of Public Health and the Surgeon General of the Army shall prepare a code of proper regulations for the better sanitation of the Army of the United States, which said regulations, when approved by the Secretary of War, the Attorney General and the President, and officially published, shall have the force of law and shall be executed by surgeons in the Army, under the supervision of their military superiors

The Commissioner of Public Health and the Surgeon General of the Navy shall prepare a code of proper regulations for the better sanitation of the Navy of the United States, which said regulations, when approved by the Secretary of the Navy, the Attorney General and the President, and officially published, shall have the force of law, and shall be executed by surgeons in the Navy, under the supervision of their naval superiors

The Commissioner of Public Health and the Commissioner of Education shall prepare a code of proper regulations for the better sanitation of all schools within jurisdiction of the United States, which said regulations when approved by the Secretary of the Interior, the Attorney General and the President, and officially published, shall have the force of law, and shall be executed by the Commissioner of Education

The Commissioner of Public Health and the Surgeon General of the Marine Hospital Service shall prepare a code of proper regulations for the better sanitation of merchant vessels sailing under the flag of the United States, which said regulations, when approved by the Secretary of the Treasury, the Attorney General and the President, and officially published, shall have the force of law, and shall be executed by the Surgeons of the Marine Hospital Service, under the supervision of the Surgeon General of said service Any vessels neglecting or refusing to comply with the aforesaid regulations shall forfeit their right of registration

The Commissioner of Public Health and the Commissioner of Agriculture shall prepare a code of proper regulations for the better sanitary transportation from State to State, of animals designed for the food of man, which said regulations, when approved by the Secretary of the Treasury, the Attorney General and the President, and officially published, shall have the force of law, and shall be executed by the agents of the Agricultural Department, under the supervision of the Commissioner thereof, or by the Superintendents of quarantine herein provided for, under the supervision of the Commissioner of Public Health

The Commissioner of Public Health and the President of the American Medical Association shall prepare a code of regulations for the practice of physic and surgery, and midwifery, in any place or territory under the jurisdiction of the United States, which said regulations, when approved by the Secretary of the Interior, the Attorney General and the President, and officially published, shall have the force of law, and shall be executed by the Commissioner of Public Health Such regulations shall not include the Army, Navy and Marine Hospital Medical Services For the service aforesaid the President of the American Medical Association is hereby appointed, and shall receive such compensation therefor as may be agreed upon between him and the Commissioner of Public Health with the approval of the Secretary of the Treasury

Sec 10 All goods designed for the food or drink of man, for wearing apparel, or for the furniture or decoration of habitations, so poisoned by adulteration, by coloring matter, or by any ingredient whatsoever, as to become demonstrably dangerous to human life or health, are hereby declared to be contraband of commerce anywhere within the exclusive jurisdiction of the United States, and may be seized, detained, confiscated or destroyed by the Commissioner of Public Health or his agents, with the approval of the Secretary of the Treasury, the Attorney General and the President

Sec 11 The Commissioner of Public Health may call on the President to detail army surgeons, with the concurrence of the Secretary of War, or navy surgeons, with the concurrence of the Secretary of the Navy, to investigate special diseases or their causes When army or navy surgeons are thus detailed, they shall receive no extra compensation, but their actual necessary traveling expenses shall be paid, for which vouchers shall be rendered They shall make full reports of their investigations to the Commissioner of Public Health

Sec 12 The Commissioner of Public Health may, with the approval of the Secretary of the Treasury and the President, and shall, on the requisition of the Secretary of the Treasury and the President, temporarily employ competent physicians to aid the Superintendents of quarantine during the invasion of an epidemic disease, and physicians thus temporarily employed shall receive compensation at the rate of $10 per day during the time of actual service, and their actual and necessary traveling expenses shall be paid, for which vouchers shall be rendered

Sec 14 The Commissioner of Public Health shall issue a weekly bulletin, for free distribution to all health boards and to the press of the country, containing an abstract of sanitary information in his possession that may be useful and interesting to the people He shall make an annual report to the Secretary of the Treasury, to be transmitted by him to Congress, containing a full account of all the transactions and expenditures of the Bureau The bulletin and report aforesaid, and all other necessary documents, shall be printed at the Government Printing Office, on the requisition of the Commissioner of Public Health, in the same manner and subject to the same provisions as other public printing for the several departments of the government

Sec 15 Any violation of the provisions of this act, or of the regulations authorized by this act, shall be punishable by a fine of not less than one hundred dollars nor more than one thousand dollars, or by imprisonment not less than thirty days nor more than one year, or by both such fine and imprisonment, in the discretion of the court The district courts and the prosecuting attorneys of the United States are hereby required to take cognizance of offences arising under this act, within their several jurisdictions

Sec 16 To defray the expenses incurred in carrying out the provisions of this act, the sum of $400,000 or so much thereof as may be necessary, is hereby appropriated, to be disbursed under direction of the Secretary of the Treasury, on the requisition of the Commissioner of Public Health

Sec 17 An act entitled "An act to prevent the introduction of contagious and infectious diseases into the United States, and to establish a National Board of Health," approved March 3, 1879, and all other acts or parts of acts conflicting with the provisions of this act, are hereby repealed

Sec 18 This act shall be in force on and after its passage and publication

FOREIGN CORRESPONDENCE.

LONDON LETTER.

London, December, 1884

Dr Arnold Royle, who was the private medical attendant of the late Duke of Albany, has been appointed "Gentleman Usher, Groom of the Privy Chamber, and Clerk of the Robes" to the Queen The post is a sinecure and is worth about £280 a year Dr Royle has certainly earned the Queen's favor, for his late post was a most arduous and difficult one to fill

Three years ago, the Rev Canon Erskine Clarke founded the Bolingbroke House Pay Hospital, which was intended for the reception of patients of the lower middle classes, and particularly for those who had fallen sick in lonely lodgings They were to be received upon paying such a reasonable portion of their actual cost as the means of the patient allowed It is obvious that by this means such an institution would be serving two very great objects, viz, the medical treatment of those who were willing to pay their utmost, instead of seeking free medical advice at one of the general hospitals, and enabling them to take in a great number of really poor, necessitous cases Hitherto this useful experiment has been conducted with the aid of an active local medical staff, but as this was thought to somewhat limit the usefulness of the hospital, the institution has now been thrown open to any qualified medical man who may wish to send in cases that need hospital treatment Although conducted on strict hospital principles it may be described as "a home within a hospital" Servants paid for by their masters or mistresses are received at one guinea weekly, and this is a very useful branch of the hospital's work

At a meeting of the Cambridge Medical Society an interesting case was brought to notice, of a man aged 50, robust and of temperate habits, who for the last twenty-five years had suffered from paroxysmal attacks of great pain in the epigastrium These increased in frequency and severity, chiefly during defœcation Sometimes the process lasted from one to three hours, during which he had frequent recourse to brandy and laudanum, at the conclusion he usually passed a few drops of glairy mucus from the bowel, with the simultaneous shedding of a few tears When seen during the paroxysm, his countenance was pallid, and bathed with perspiration, expressing agony His death occurred suddenly, previously he was very restless and exhausted At no time were there any physical signs The necropsy revealed a hard substance near the centre of the pancreas The head appeared natural, but, extending from about the middle of the body, a line of prominences could be seen running along the long axis to the tail, accompanied by great structural change Some of these masses were very pointed, denuded, and projected under the areolar tissue and peritoneal covering The lower part consisted of one amorphous mass of concretion, without any soft gland-structure Close to the sharp points the peritoneum and wall of the stomach were acutely inflamed, but there was no effusion The concretions consisted of carbonate and phosphate of lime The scantiness of the literature on pancreatic concretions was alluded to The emotional phenomena were thought to be due probably to reflex irritation of the alimentary canal, and the sudden death referred to the injury of the peritoneum by the sharp projections At the same meeting the case of a lady aged eighty was mentioned, in whom for upwards of fifteen years symptoms of intermittent pain at the epigastrium, with emotional phenomena existed, and at the post-mortem examination there was found a spindle celled sarcoma of the head of the pancreas, but no concretions

A lecture entitled "A Healthy Skin" has been delivered by Mr Startin, house surgeon to the St John's Hospital for diseases of the skin The lecturer said nothing was so likely to preserve us from cholera and from every other disease of an epidemic and contagious kind as a proper and constant care of the skin Mr Startin also dwelt upon the importance to health of a careful attention to diet English people, as a rule, took too much and too stimulating food, and would be the better for a more mixed and vegetable diet He condemned also entirely the use of spirits, except as a medicine The question of clothing was also of great importance in relation to the preservation of health Clothes should not be worn tight, and should be of such material as would convey from the skin the matter transpired The best material for wearing next the skin was white flannel, or as an alternative, merino Red flannel should never be worn, and his audience was warned to avoid all colored fabrics next the skin

Dr W N Thursfield, at the conference held under the auspices of the Society of Medical Officers of Health, on "The Spread of Infection through the Agency of Milk," said that the use of milk by adults had of late enormously increased, and although he could not but consider that to drink milk as a beverage with heavy meals was a grave dietetic error, the modern practice of drinking glasses of milk instead of beer at railway refreshment bars, etc, was not to be condemned To prevent milk epidemics precautions were necessary He recommended boiling of milk, as it was a well-known fact that consumers of boiled milk had invariably escaped in all epidemics

Dr Wood, the inventor of the hypodermic syringe, died lately at his house in Edinburgh In 1855 he drew attention to his new method of treating neuralgia by subcutaneous injection He was one of the former lecturers on The Practice of Medicine at the Royal College of Surgeons, and President of the Royal Medical Society

A course of six lectures will be delivered during this year at the London Hospital by Mr Jonathan Hutchinson, as Emeritus Professor of Clinical Surgery, on subjects of interest to house surgeons and dressers Members of the profession will be admitted to these lectures At a meeting of the committee formed to consider the best means of commemorating the name of Dr Rabbeths and the sacrifice he made of his life in the attempt to save a child's life suffering from diphtheria, it was resolved to establish a memorial medal at the University of London, bearing Dr Rabbeth's name, and a similar medal or scholarship at King's College The endowment of a child's cot at King's College Hospital and the Royal Free Hospital, and the erection of memorial tablets in the same building, were also resolved upon

There have just been removed by death two rising medical men, both already well known for their various accomplishments The first was Dr Mahomed, of Guy's Hospital, at the early age of 39, of typhoid fever, the other, Dr Llewelyn Thomas, after three days' illness of acute nephritis, at the age of 36 Dr Thomas acted some years at the Guest Hospital, Dudley, and then settled in London as a specialist in diseases of the throat and ear He was surgeon to the Central London Throat and Ear Hospital and to Trinity College, London G O M

BERLIN LETTER

BERLIN, Dec 1, 1884

The Treatment of Syphilis by Massage—Pellaterine in the Treatment of Tapeworm—Professional Notes—For pay patients in his private hospital Dr Lassar has inaugurated a routine treatment in all cases of syphilis In his poli klinik the poor people receive much the same attention, only in a less elaborate way, and specific medication is given by hypodermic injections of the mercuric bi-chloride The well-to do case of specific disease is first put into a tub of water as hot as it can be tolerated A strong nurse then gives him massage in the tub, and out of the water unguentum hydrargyri is rubbed in The patient is then put into a sweat bed, and hot teas or pilocarpin administered Then iodide of potassium and sarsaparilla tea, the latter to keep the skin active, Dr Lassar's theory of massage being, to render the lymphatic system more active in expelling the virus, and to place the skin in such condition that it can ably second the endeavor The masseur, anointing his hands with vaseline, begins first with the arms, which are rubbed quite forcibly in a direction from the wrist to the shoulder, then, with the thumb and forefinger of each hand encircling that member in so far as is possible, an "eccentric" motion is commenced, the two fingers of the one hand rotating toward the body, while the motion with the other hand is just the reverse, or away from the body of the masseur Then, grasping the hand of the patient, the arm is extended, rubbed, kneaded, and passive motion is kept up for a few moments The trunk receives the same attention, also the extremities, only instead of the "eccentric" motion, there is a slapping diversion, and a larger attention given to the deep kneading of the muscles Dr Lassar is having excellent results, but whether *post hoc* or *propter hoc*, I am unable to say In connection with specific treatment massage has much to commend itself to the attention of physicians How far its practice could obtain outside of a private hospital, remains to be seen In Dr Lassar's perfectly arranged and extensive sanitarium there is every facility for elaborate technique and investigation The expense incident to the sustaining of such an institution must be great, and only possible with men in *very* large and remunerative walks of life The use of pellaterine (the alkaloid of the pomegranate) has sprung suddenly into popularity here, owing to the immediate and entirely satisfactory effects arising from its administration Its excessive *cost* militates against its general use Not long ago, Hegar, of Fribourg (*Prager Med Wochenschrift*, No 26, 1884) published an article, "a new method of diagnosing with certainty, pregnancy in the early months" This consisted in a certain softness, pliability and tenuity of the inferior segment of the uterus—that is to say, of that part of the womb immediately superior to the insertion of the utero-sacral ligaments Dr Schroeder, in his lecture to the students on Nov 21, stated that for years he had found one sign of pregnancy in the early months, to be invariably certain, and then went on to give the details exactly as published by Hegar There have been several cases lately of women with highly exaggerated scoliosis in full term of pregnancy In every instance, however, except in one case at Charité, service of Prof Gusserow, the spinal deformity had not interfered with the normal pelvic measurements

Of laparotomies there seems to be no end Prof Schroeder is constantly opening the abdomen, and his gross results are admirable He makes a diagnosis rapidly, operates easily, and with the perfect self-possession that comes of varied experience There are very many points in medical education and procedure at Berlin which arrest the attention of an American It must be a rare phenomenon to find a German holding the University degree who has not something of scientific merit, and of clinical experience The opportunities for the *student* here to perfect himself in the practical details of his calling, such as frequent gynæcological examinations, obstetrical work (the application of forceps, craniotomy, etc), eye and ear operations, the opportunities for following up the clinical histories of patients, and for pathological investigation, are far ahead of anything at home I know of no college in the United States where a student can obtain so much practical experience in gynæcology and obstetrics as they can here Over two thousand cases yearly of labor are attended by students, and quite as many in the gynæcological department are examined by them Then the knowledge of pathology which seems indigenous to the German medical people is simply astonishing Even the least among them can go to the *fons et origo* of any case under discussion This is not a superficial knowledge, but a deep, logical ratiocination which is the outcome of years of study It is a concomitant fact of the German character, which is not satisfied until it has reached the beginning They are not diffuse They never attempt too much They *exhaust* one subject before attempting another Their pathology is the grand, massive foundation, upon which everything else must rest, and I cannot but wish that we had more of it Every day I have cause to blush for my own shortcomings in this way But in saying this much, I have said nearly all

The post-graduate courses in New York and elsewhere are much more satisfactory to the medical man than are any of the poli-kliniks here There are no clinics in the world, on the eye, better than those of Knapp, Agnew, Derby, and others The same may be said of the gynæcological courses of Munde, Dawson, Baer, Dudley, and men of equal eminence in other leading cities at home In practical didactic lectures, Emmet and Thomas, Goodell and Byford, Parvin, Palmer, Reamy, Flint, Bartholow, Minot and Whittaker cannot be excelled here, even if they be equalled All of our specialists, it seems to me, do certainly as good work and in a much neater fashion than is the custom here It is certainly well for the specialist to see different methods of operating, and it enlarges his general views, but for actual study our poli-kliniks are much superior—except in histology and pathology It is somewhat a matter of speculation in Berlin, and the return for one's money is not great *Le jeu ne vaut pas la chandelle* I am confining myself more to the case of *medical men* and not to students If one is fortunate enough to make some arrangement with one of the assistants he can often get much more *real* knowledge than he can from the more distinguished professor Such a course is that of Dr Weyder (first assistant to Prof Gusserow), who, for 20 marks, gives an admirable course to physicians on obstetrics, forceps, operations, etc In addition to this he is a very genial, courteous, warm-hearted man But these are characteristics of Dr Gusserow himself and of all of his assistants Not as much may be said of some of the others Landau's clinic covers the average cases that would come into the office of a general practitioner, but the amount of his material is small, his operations very, *very* rare, and his fee of 50 marks for four weeks somewhat excessive

The very general use of chloral-chloroform, and the recklessness in its administration is a matter of universal comment Scarcely an examination is made without the use of this anæsthetic A patient is often kept for an hour under its influence while the professor discusses her case before the students Barduken lost three cases and Bergman one case in one semester from chloroform narcosis The good results from primary surgical operations are largely due to strict antiseptic detail, for in manner, method, appliance and detail our surgery is finer, cleaner, and more ingenious Some of the mechanical devices in use, especially in gynæcology, are extremely clumsy and cumbersome I cannot imagine German manners of examination, and German methods being carried out at home They would scarcely be tolerated, and would be abhorrent to the greater sensitiveness of our women, even of the most debased So far as my observation goes, we do very much better gynæcological work in the United States than is done in Berlin, and nowhere can a medical man see better work upon the eye, or have more extended facilities for observation than in New York For the special histology of the normal eye, Moorfield's, London, Eng , is the best and only place I know There is no such course given here Two matters in surgery have impressed themselves upon me since my arrival in Berlin, with convincing force—one is that the intra-peritoneal treatment of the pedicle is the most correct one, and that there is a wide and growing field for conservative gynæcology This is dangerous ground for a man with hobbies, and I may not traverse it, lest I become prolix Suffice it to say that I am very strongly of the opinion that many cases would do better but for meddlesome interference—that the surgeon's skill is too often called into service, and that extirpation of the uterus, by any method, for malignant disease, exposes the patient to a terrible risk, and is but tentative in its results There is much special and general surgery here—much that is good and necessary, much that is unnecessary, and some that is bad I do not consider it good work to amputate the anterior cervical lip for a simple hypertrophy, not excessive and not accompanied with symptoms of bodily disorder I do not consider it necessary to operate upon a woman 68 years of age for a malignant orbital tumor, when the result of such operation will be fatal in the great majority of cases I do not consider it wholesome gynæcology to sew up every lacerated cervix, to dilate in every uncomplicated case of endometritis, to operate in every instance of fibroma, of myoma or carcinoma, or to use intra uterine injections of strong, saturated liquors of iron, iodoform or iodine as frequently as I have seen them used I *despise* pessaries, and most of all the big, unwieldly ones that are the fashion here It is not uncommon among some pro fessional men here to feign a disbelief in the efficacy of any method not purely of Berlin origin, and to cling with fanatical clanishness to unwieldly devices simply because they are indigenous If our German brothers can teach us pathology, histology, and exactness in examination, which they certainly can do, they can learn much from us in elegant surgery, in light and effective mechanical devices, and in conservative practice H R B

Charles W Shumway, m d , for nearly 30 years an active and respected practitioner of this city, died on the 19th inst , from diabetes

DOMESTIC CORRESPONDENCE

SECTION ON DISEASES OF CHILDREN.

Dr N S Davis, Editor Jour Am Med Asso , Chicago, Ill

Dear Sir—Will you, through the columns of the Journal, please request those who intend reading papers before the "Section on the Diseases of Children" to be kind enough to send the title of their papers, by the last week in March, to the Secretary of the Section, Dr S S Adams, Washington, D C , or to me, at Marshall, Texas

It is necessary to know the titles of the several papers to be presented, so that the committee of arrangements may be informed at least one month before the meeting of the Association, the last Tuesday in April, and we trust that no one will fail to notify us in due time Very respectfully,

John H Pope,
Ch'm'n Sec on Dis Child , Am Med Ass

NECROLOGY

Reed, Joseph Allison, m d , of Dixmont, Allegheny county, Pa , was born in Washington, Pa , December 31, 1823, of Scotch-Irish parentage, and died November 6, 1884

He received his classical education at Washington College, Pa , where he graduated a m in 1842, after which he began the study of medicine in the office of Julius Le Moyne, m d , the noted abolitionist of Western Pennsylvania, receiving his degree of m d from the Jefferson Medical College in 1847

Shortly after he located in Allegheny City, where he in a short time established himself in a large and lucrative practice Having a special aptitude for the study and treatment of mental diseases, he was, upon the establishment of the insane department of the Western Pennsylvania Hospital, at Pittsburgh, in 1854, chosen physician in chief

In 1857, the hospital having in the meantime been set apart exclusively for the care of the insane of the western district of Pennsylvania, Dr Reed was appointed resident physician and superintendent

Upon taking charge of the hospital it contained within its wards twenty-three patients, was in debt, and affairs were in the worst possible condition With characteristic promptness and energy he soon raised the amount necessary to relieve the institution from debt, and provide food and clothing for the starving inmates, in a short time placing the institution on an equal standing with others of the same class

Through his efforts and those of the widely-known philanthropist, Miss Dix, appropriations were obtained from the Legislature for the construction of a new hospital, to be located seven miles west of Pittsburg, on the north bank of the Ohio river, and under his immediate supervision the present exceptionally commodious edifice at Dixmont was erected

Upon the completion of the centre building and two adjacent wings in 1862, he removed the one hundred and thirteen patients then under his care into the new hospital

The building was subsequently enlarged by the addition of four wings, making the capacity of the institution six hundred From Dr Reed's last annual report we learn that since the opening of the hospital there have been under his care four thousand six hundred and ninety patients, of whom one thousand three hundred and ninety-six have been entirely restored, and one thousand two hundred and thirty very much improved in their mental and physical conditions

To his untiring efforts, unceasing devotion and indomitable energy is due the success of this his life work, and it stands a veritable "Arc de Triomph" to his memory A nobler memorial in this world is not to be desired

Dr Reed was a member of the County, State, and National Medical organizations, Association of Medical Superintendents of Insane Hospitals, American Social Science Association, and American Academy of Medicine

He was also a member of the commissions appointed by the legislature to superintend the erection of the Danville Hospital for the Insane, and to report on the care of the criminal insane

He was one of the committee appointed by the American Social Science Association to report on the proper provision for the insane, and a member of the commission appointed by Gov Hoyt to revise the lunacy laws of the State

In the death of Dr Reed the commonwealth loses one of its foremost alienists, and the medical profession one of its most distinguished members, a man endowed by nature with rare qualifications of mind, heart and soul, with unusual executive ability and wonderful skill in ministering to minds diseased

Possessed of remarkable personal magnetism, all those with whom he came in contact were irresistibly drawn towards him, and his patients were made to feel that in him they had found a *friend* as well as physician The secret of this lay in the strong, tender and loving sympathy of his spirit, which made him indescribably winning

I should not be doing full justice to the character of Dr Reed if I failed to speak of the strong religious sentiment which pervaded and influenced every act of his life

To know and confer with such a man was a rich privilege, and by his death earth is the poorer and Heaven the richer At a meeting of the Board of Managers of the Hospital, held shortly after his death, the following preamble and resolutions indicative of the high esteem in which he was held by those who knew him well, were adopted

WHEREAS, God, in the exercise of his sovereign will and wise providence, has removed by death Joseph A Reed, M D, who for years was Superintendent of the Western Pennsylvania Hospital for the Insane, the Executive Committee desire to place upon the records of the hospital the appreciation of his official character and its sorrow for the loss the hospital has sustained by his death

Therefore *be it Resolved*

First That in the judgment of the Committee the great ability and faithfulness exhibited by Dr Reed, gave him a place among the most prominent of those occupying similar positions in our land

Second The Committee has always had the satisfaction of knowing that the sacred interests which it was called upon to supervise—in the care of Dr Reed—were in the hands of one qualified by professional skill, executive ability and moral elevation of character to counsel it in the best possible manner

Third The Committee reflects with pleasure upon the fact that during the illness of Dr Reed it made known to him the high appreciation of his work, and its great sympathy for him in his sufferings, informing him also of the action of the Committee on October 30, which provided for his relief from all care, thus opening every avenue, as was hoped, for his recovery

Fourth That in the death of Dr Reed the hospital has lost an able superintendent and the charities of the State a most earnest and efficient promoter

R C Loomis, Sec , F S Bissell, Chairman

D A H

Dugas, Louis Alexander, M D , L L D , of Augusta, Ga , was born in Washington, Wilks Co , Ga , January 3, 1806, died at his residence in Augusta, October 19, 1884 He was of French extraction, his parents coming to Georgia from St Domingo, West India Islands After acquiring a good academical education he began the study of medicine in the office of Dr John Dent He attended medical lectures at the University of Pennsylvania, and at the University of Maryland, receiving his M D degree from the latter in 1827 Doctor Dugas then went to Europe, where he further prosecuted his studies in the large hospitals of Paris and London Returning to the United States he settled to practice in 1831, in Augusta In 1832, he and five associates formed the medical college of Georgia, in which institution he held a chair (and was Dean of the faculty,) to the time of his death He was for many years editor of *The Southern Medical and Surgical Journal* His contributions to medical literature are numerous and to be found in the various medical periodical publications of this country from 1831 to 1883 Although a general practitioner his taste led him to prefer surgery He also contributed valuable papers to the Georgia State Medical Association (of which he served as president for one term) and to the American Medical Association Dr Dugas became a member of the American Medical Association in 1847, attended 1849 and 1879 He was one of the vice-presidents of the International Medical Congress, held at Philadelphia in 1876 He was from the opening of the Augusta City Hospital one of the attending surgeons, President of the Academy of Richmond Co , and a member of a long list of learned and scientific societies at home and abroad He served with reputation as a surgeon during the war between the States

Doctor Dugas was a popular teacher, beloved by co-professors and by students He was twice married, first to Mary C Barnes, in 1833, her death occurred the same year In 1840 he was united in marriage to Louisa V Harris, daughter of Rev Uriah Harris, of Columbia, Ga

At a special meeting of the faculty of the Medical College of Georgia, feeling resolutions of respect for the worth and memory of Prof Dugas, were passed, and entered upon the minutes and published in the daily papers

His funeral was largely attended by a host of friends J M T

BOOK REVIEWS.

DOCTRINES OF THE CIRCULATION By J C DALTON, M D Cloth, 296 pages Philadelphia Henry C Lea's Son & Co

This history of physiological opinions and discovery, in regard to the circulation of the blood is, as far as we are aware, the most complete work upon the subject It is written in the most charming style and is abundantly backed up by an appendix containing quotations from the ancient writers To those who wish to read a good book or review their Greek, special advantages are offered by this volume Neither is the review of the subject untimely In fact, a passing glance at the history of great events is seldom untimely, for by observing the laborious research and heated argument which extending over periods of years finally result in the establishment of to us every day doctrines, we can better appreciate the labors of those patient workers of to day, who are by research and thought laying new foundations for future generations C E W

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA 1884 Cloth Pp 477

This society has succeeded, by inserting a number of advertisements, in getting up its report in very good shape Among the most interesting matters we note the following That myopia is increasing among the Southern negroes as a result of book study, that woolen yarn makes an excellent vaginal tampon, that the coloring of urine with hydrochloride of rosaneline facilitates the recognition of pathological elements in the sediment, also, in a paper by Dr Jas M Hale, it is shown that extreme age is no contra-indication for cataract extraction Dr Eugene Foster, in a lengthy and able paper, reviews the opinions of Herbert Spencer respecting syphilis as a sociological problem Spencer claims that the disease in question is on the decrease, both as to the number of its victims and the virulence of the attack Dr Foster, like every other thoughtful and observant physician, is fully aware of the error of this assumption It may be true that the malignity of the disease is lessened, but this is probably the result of its successful treatment, rather than any change in the nature of the disease itself As a factor in social affairs, it is evident that Mr Spencer greatly underestimates the importance of syphilis C E W

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA SEVENTEENTH ANNUAL SESSION Paper 154 pages

This comprises numerous reports and contributions Dr R W Hall, after a discussion of the effects of great irregularities of the surface on atmospheric changes concludes, that during that part of the year in which the surface of the country is cooler than the atmosphere, there must be conditions very favorable to the development of diseases affecting the respiratory organs and such other diseases as are influenced by sudden changes of temperature

In connection with the report of a case of œsophagotomy by Fleming Howell, M D, for the removal of a silver half dollar, it is interesting to note that that coin seems to about measure in its diameter the maximum distensibility of the organ, moderate force being sufficient to introduce it beyond the convenient reach of instruments, the subsequent spasm of the œsophagus rendering operation necessary

Dr W H Sharp presents a lengthy review of the literature and opinions of the profession on the subject of Listerism in Obstetrics C E W

MISCELLANEOUS

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, UNITED STATES ARMY, FROM JANUARY 10, 1885, TO JANUARY 16, 1885

Head, Jno T, Colonel and Surgeon Retired from active service by operation of law, on Jan 9, 1885, under provisions of act of Congress approved June 30, 1882 (S O 7, A G O, Jan 9, 1885)

McKee, J C, Major and Surgeon Ordinary leave of absence still further extended four months on surgeon's certificate of disability (S O 6, A G O, Jan 8, 1885)

Bentley, Edwin, Major and Surgeon Leave of absence extended two months (S O 8, A G O, Jan 10, 1885)

Elbrey, F W, Captain and Assistant Surgeon Sick leave still further extended six months on surgeon's certificate of disability (S O 9, A G O, Jan 12, 1885)

Tremaine, W S, Major and Surgeon Relieved from duty at Fort Porter, N Y

Girard, A C, Captain and A Surgeon Ordered for duty at Fort Porter, N Y

Appel, D M, Captain and A Surgeon Ordered for duty at Plattsburg Barracks, N Y

Girard, J B, Captain and A Surgeon Ordered for duty as Post Surgeon, Fort Schuyler, N Y H

Havard, Valery, Captain and A Surgeon On being relieved at Fort Schuyler, authorized to avail himself of leave of absence (four months) (S O 8, Dept East, Jan 12, 1885)

PROMOTIONS

Lt Col John Campbell, Surgeon, to be Surgeon with rank of Colonel Dec 7, 1884

Maj R H Alexander, Surgeon, to be Surgeon with rank of Colonel Dec 7, 1884

Capt, Henry McElderry, Assistant Surgeon, to be Surgeon with rank of Major Dec 7, 1884

APPOINTMENTS

Jefferson R Kean, to be Assistant Surgeon, with rank of First Lieutenant Dec 8 1884

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N. S. DAVIS.
PUBLISHED WEEKLY

Vol IV | Chicago, January 31, 1885 | No 5

ORIGINAL ARTICLES

A CLINICAL LECTURE ON THE MECHANICAL TREATMENT OF POTT'S DISEASE

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The first case we will consider to-day is this boy of nine years, who has had spondylitis for two years, and whose mother died of phthisis soon after his birth There is no history of traumatism so far as it can be elicited, and his step-mother states that her attention was first drawn to his condition by his complaints of pain He described this pain as passing from his back around the right hip to the front of the abdomer, and that the pain was not constant, but was felt more in the afternoon, after exercise She also noticed that he afterwards began to carry himself stiffly, and carefully avoided bending the spine, resting often in a stooping posture, with his hands upon his knees, thus transferring the weight of the head and upper extremities to the legs directly She also noticed, about this time, a protrusion, or "knuckle," as she termed it, in the median line posteriorly, and this became more noticeable if he bent forward He was then seen by the family physician who diagnosed disease of the lower dorsal vertebræ, and recommended a plaster jacket, which was applied during partial suspension This, for a few weeks, caused an amelioration of the symptoms, but as they began to increase it was removed at the expiration of six weeks and another applied The deformity was, however, not improved, as the kyphos was slightly larger than when the patient was encased in the plaster, and suspension, while it straightened the spine and caused the compensatory curves to disappear, did not seem to appreciably affect the knuckle itself

At intervals the jackets were removed and renewed, as the indications for change arose, but they did not effect a cure of the disease The effect of the jacket was, however, valuable in the sense that it was restrictive, that it afforded a degree of fixation which prevented the vertebral ostitis from proceeding so rapidly as to form abscess, and as it is thoroughly protective it should be used when better agents are not at hand

But in the case of this child the parents became dissatisfied with the effects of the jacket four months ago and requested a change in the method of treatment Upon placing him on a padded table in the position shown in Fig 1, and allowing the head and shoulders to hang over the edge, the parts meanwhile being carefully supported while descending, the knuckle itself is seen to decrease perceptibly in size and prominence, and the compensatory curves are reduced. This effect is due to gravitation, the head and upper extremities, hanging in space on a lower plane than the kyphos, act as a downward traction force upon it, while the padded edge of the table, by opposing resistance to the descent of the rest of the body, exerts a force, in a directly opposite direction, upon the kyphos itself The first causes an extension of the diseased portion, relieving local pressure and tending to stretch it into the normal curve of the spine, while the second intensifies the direct effect upon the kyphos in diminishing the deformity

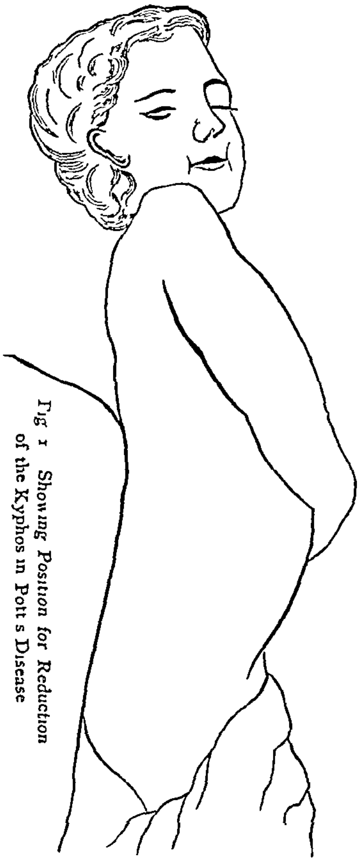

Fig 1 Showing Position for Reduction of the Kyphos in Pott s Disease

Authorities have so stoutly maintained that a knuckle, when once formed, should be allowed to proceed to complete consolidation, without attempting to mould the parts into better symmetry before the consolidation is effected, that it required considerable courage to first try the effects of this position, which would tend, to a certain extent, to disorganize the consolidation if not yet completed, and I was, therefore, very much pleased in my first case to note

ties by the other, traction force is exerted horizontally to separate the two attachments

Upon the principle of *vertical* traction are founded linear traction braces, a notable example being that of Prof Edmund Andrews, of Chicago, in which the extension is produced by a screw-ratchet, but very much more often a vertical suspension apparatus is employed

This is best known in connection with the plaster-of-paris jacket advocated so warmly by Prof Sayre, and which was exhibited to you in detail at our last clinic, when a jacket was applied

This suspension apparatus lifts a patient's superincumbent weight from the diseased portion, and utilizes as a vertical traction agent all that portion of the body below the seat of disease While thus suspended a plaster-of-paris bandage is rapidly and smoothly wound around the trunk and allowed to "set" firmly before the erect position is again assumed, with the object of holding the extension gained by the suspension But this has been demonstrated by Heather Bigg, Shaffer, and others, to be impossible, and the opinion is expressed by them that the spine, being grasped by the plaster only throughout part of its extent, is not held so as to prevent its segments from pressing upon one another when the vertebral column resumes its normal function of carrying the weight of the head and upper extremities The extension produced by the suspension is lost when the suspension ceases, unless a jury-mast is added to the jacket, in which case the extension produced by the suspension can be maintained by the apparatus If, however, the jury-mast is not used, the plaster jacket becomes a fixation splint, but is more effective than the other splints of the fixation class, because it holds the spine in the improved curves produced by the suspension There is, however, no possibility of adjustment or inspection of the parts, unless the jacket is removed and reapplied, and as there is no active force pressing forward upon the kyphos, there is no corresponding decrease in the actual deformity except such as may be gained at the time of each suspension, and, of course, a certain amount of this is lost if not all, when the spinal chain again becomes a column by the cessation of the suspension and the resumption of the superincumbent weight, which tends to press the diseased portions together

Symmetrical traction can also be exerted locally in the lower dorsal and lumbar regions, by dividing the jacket and connecting the segments by ratchets, but the use of such apparatus is unsatisfactory—for while vertical tension is exerted upon the soft parts between the segments, sufficient power cannot be employed to cause a state of extension between the vertebræ, without exciting too much pressure upon the skin and other soft structures—while at the same time no forward pressure is brought to bear upon the kyphos The action of vertical traction upon a kyphos is well illustrated by a long strip of lead or other flexible material in which a knuckle is formed in the semblance of the deformity of Pott's disease If linear traction is made to overcome this knuckle it will be seen that no power which can be exerted will take it out entirely, that although the strip becomes straight on either side of the angle, the angle itself does not disappear, and it will therefore be readily understood that while the curves of the spine are similarly improved by linear traction, and can be held in this improved position by the plaster jacket, or a divided jacket provided with linear ratchets, it is impossible for the deformity itself to be completely overcome, or even appreciably improved by them, or any form of apparatus founded upon the principle of symmetrical traction

It, therefore, is apparent that although very little permanent improvement can be effected upon the deformity itself, unless it is very recent, yet the fixation in an improved position which they certainly secure, often arrests further progress of the disease and prevents increase of the deformity

These divided jackets first came into use in 1878, the idea originating with myself, and being published by me at that time, and my apparatus was afterwards improved by Dr Wyeth, of this city Still later Dr Roberts, also of this city, substituted elastic traction ratchets for the fixed traction ratchets of Dr Wyeth and myself, with the idea of producing a constant linear elastic force, which should admit of motion, but not otherwise altering the principles involved

Of more value, however, than symmetrical traction, in Pott's disease, is the *third* principle of mechanical treatment, which you will remember is the partial extension caused by *backward traction*

This produces extension of the bodies of the vertebræ relieving them from pressure by curving the spine backward, so that the articular processes are caused to assume the superincumbent weight The origin of this principle is generally ascribed to Dr H G Davis, although the first effective instrument for utilizing the principle was devised by Dr C F Taylor, and this was exhibited to you at the last lecture

A later instrument for the same purpose was invented and used by Mr Chance, of London, and has lately been advocated by E Noble Smith, although the difference between the original brace of Dr Davis and that of Mr Chance is so slight as to be hardly appreciable, but the latter is extended upward so as to embrace a greater extent of the spine, which is a point of advantage Dr Taylor's brace differs from the others in being provided with a double screw hinge, placed just above and below the kyphos, so that the angle of the upper with the lower portion could be changed by the screws without removal of the brace from the back, while in the others this alteration must be effected by a wrench or the hand before the brace is applied, but the action of each of them on the spine is the same

In all of these braces for backward traction, and in those for fixation and symmetrical traction beside, the *bending point* of the spine, or the point where the spine most readily gives way if the patient leans forward, is at the *seat* of *disease*, so that it requires great strength on the part of the apparatus to prevent this

You have thus seen and had demonstrated to you that the patient was not only not rendered uncomfortable by the proceeding, that no bad effects were observable, but that a mitigation of the pain at once took place, very much the same as is often observed, and has been referred to by others as resulting from placing a child with Pott's disease on the knees, with the kyphos between them and drawing the knees gradually apart In the patient before you the same result is obtained, both in regard to pain and disappearance of the compensatory curves, the kyphos, in addition, being also caused to decrease in size

The attitude assumed by the authorities who urge that consolidation should take place without attempting to previously reduce the deformity, is very similar to that which was formerly maintained in regard to the hip—that ankylosis in the flexed and adducted position was the proper and best result attainable, and should be encouraged At the present time, however, as we have aimed to show in the consideration of the hip cases treated in our clinic, we are not satisfied with ankylosis and deformity, but try to effect motion and absence of deformity, and gradually restore the joint to a useful condition To a certain degree this applies to the spine

The pathological progress of ostitis in the head of the femur and in the bodies of the vertebræ is very similar, and if in hip disease we can prevent the deformity from becoming permanent until the ostitis is arrested and the function of the joint restored, we might with reason claim that if the vertebræ can be prevented from being crushed together by the superincumbent weight while they are in the soft and disintegrated condition incident to the ostitis, until the disease is overcome and the process of repair completed, a cure could be effected without deformity Proceeding still further, it is also reasonable to suppose that while the carious process is still active and consolidation not effected, although a kyphos may be present when the erect position is assumed, owing to the pressure of the superincumbent weight, if this kyphos can be *immediately* reduced, and the reduction maintained by a splint until the active stage of the ostitis has ceased and the process of repair is complete, or if the kyphos can be *gradually* reduced, day by day, by the use of an active force embodied in the splint, which is so constructed as to gradually overcome the deformity, and also to maintain such reduction independently of any position which the body can assume, and at the same time fix the entire spine in a position which tends to keep the bodies of the vertebræ from being pressed together by the superincumbent weight, it would follow as a natural result that a cure without deformity would ensue Of course, force sufficient to break up consolidation which is actually complete, should never be employed There is no need for me to point out the dangers or disastrous consequences of such a proceeding, but we are merely referring to the use of the gentle and efficient traction which can be exerted by the weight of the part above the seat of deformity, when exerted as already described

In the case before you this plan of treatment was strictly followed, but to understand fully the principles upon which the treatment of this case was based, it will be necessary to discuss the subject more in detail

In our last lecture we considered the various methods of treatment for this disease which were in vogue, and demonstrated the principles upon which they were founded You will remember that when we considered the mechanical department of the treatment, we divided it into three classes

1 Simple fixation,
2 Symmetrical traction, and
3 Backward traction,

because all the braces and splints for Pott's disease were based in their action upon one of these three principles

Bearing in mind, as has been ably pointed out by Heather Bigg, that the spine is a column composed of many segments, which are in apposition when the superincumbent weight is borne upon it, but that this column becomes a chain when force is exerted, or a posture assumed, which tends to draw these segments apart, it will be seen that the attempt to produce fixation of such a flexible undulating column is attended with serious mechanical obstacles You will remember, in describing the different forms of apparatus to produce simple fixation (and among these were the braces of Andrews, Washburne, Knight and others, the plaster zone of Shaffer, the wire cuirass of Bauer, and the firm jackets of Vance, Steele and others), they were described as attempting to enforce rest for the diseased portion, either by means of long metallic strips placed upon either side of the spine posteriorly and held there by girths and straps, or by enclosing the trunk in splints of leather, plaster-of-paris, felt, or other firm material, which are removable, and are usually laced tightly anteriorly, or a combination of the metallic frame and plaster-of-paris, as in the Shaffer brace But in all the forms of apparatus which embody the principle of fixation, the material strength of the splint is opposed to the flexibility of the spinal column, and if the material were sufficiently strong it would tend to hold the spine firmly, and thus tend to limit the active stage of the ostitis and inaugurate the stage of repair

The fixation appliances, however, do not attempt to remedy the deformity or produce extension of the diseased part, and their range of usefulness is, therefore, more limited than those of the other classes

Now, *extension* of the spine may be of two forms 1st, complete or symmetrical, or, 2d, partial, and both are utilized in the mechanical treatment

Symmetrical extension of the spine is the form in which the bodies and articular surfaces are stretched by the traction force to the same extent, and differs from the *partial* extension produced by backward traction, in which only the bodies of the vertebræ are stretched, the pressure being transferred to the articular *facets*

Symmetrical extension is produced by traction exerted either *horizontally* or *vertically*

Upon the principle of *horizontal* traction are founded the various horizontal couches or frames in which the patient lies supinely, and, while the shoulders and head are embraced by one segment of the divided frame, and the pelvis and lower extremities by the other, traction force is exerted horizontally to separate the two attachments

Upon the principle of *vertical* traction are founded linear traction braces, a notable example being that of Prof Edmund Andrews, of Chicago, in which the extension is produced by a screw-ratchet, but very much more often a vertical suspension apparatus is employed

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You have thus seen and had demonstrated to you some of the typical forms of apparatus which are largely used by the profession for the treatment of spondylitis, and have seen several of them in successful operation, and we now proceed to the discussion and description of another and more recent form of spinal brace which embodies some valuable attributes not possessed by any of those enumerated

It has already been stated to you that if the patient bent forward while wearing any of the braces or appliances described, the spine was more apt to give way at the seat of disease than at any other portion of its extent, owing to the yielding character of the diseased osseous structure, and that this tendency was only combated by the strength of the material employed in the splints Now, this bending forward is one of the most important factors for increase of deformity and the retardation of cure, and to meet it successfully I have been obliged to use a lever or spring, which would bring a constant *forward* elastic power to bear directly and automatically upon the kyphos, and after considerable experience I am prepared to advocate a form of spring lever which meets *this bending tendency successfully*

If the disease is in the dorsal region, a brace is constructed so as to embody a lever with a short and a long arm, the short arm extending from the site of the disease to the sacrum, and the long arm from the neck to the sacrum, the two being there connected by an adjustable clamp, and together forming a V shaped lever, which automatically acts to press forward the deformity and yet hold the spine firmly in the erect position

The force is so graduated that if leaning forward is attempted, the shorter arms press firmly over the transverse processes adjacent to the kyphos, and exert a forward pressure which prevents the spine yielding at the seat of disease In no other brace known is this accomplished, and it thereby secures a greater degree of fixation than either of the braces or splints described If the lumbar region be involved, the short arm of the lever passes from the diseased part to the second dorsal vertebra, and the long arm from the sacrum to the same point, and they are there secured together by an adjustable clamp and connected to the front of the chest by straps and a T plate, the latter utilizing the infra-clavicular spaces and sternum as pressure points, thus preventing interference with or constriction of the soft parts The braces formed upon this lever plan afford fixation in the erect position and exert forward pressure at the seat of disease, and no posture of the patient can influence or derange the action of the instrument since it is compensatory

The other systems of treatment described in the course of our lecture have, with a few exceptions, been *before the profession for a sufficiently long* period to have their merits generally understood, and have been employed with a varying degree of success, but, on the whole, the mechanical treatment of Pott's disease is considered to be in an unsatisfactory condition There are two requisites which must enter into the consideration of this mechanical problem, if its treatment is to be attended with success, and these are 1st, arrest of the disease, and 2d, obliteration of the deformity

Nature herself points out the direction in which force should be applied to relieve the diseased bodies and produce curative results

Who among us has not noticed the position assumed by a patient with the disease in the stage of invasion? The body is held rigidly, the head and shoulders being thrown back as far as possible, and in stooping to pick up an object from the floor, this position is still maintained, the patient having every muscle exercised to hold the spine perfectly fixed and bent backward, the position being very much that of an equestrian "head and chest up, the shoulders held back, and the small of the loins well knit in" Were it possible for the patient to retain this position indefinitely, progress of the disease to the stage of deformity would be *almost impossible, but it is a natural* tendency in unguarded moments and for the purpose of resting the spine, to bend forward, and bending forward from any cause, removes the weight from the articular processes, and proportionately transfers it to the bodies of the vertebræ and their intervening cartilages The muscles are unable to continue supporting the spine in its hyper erect position at all times, and consequently the patient bending forward occasionally, causes increased pressure upon the diseased cancellous bodies, hastening absorption of their structure and the formation of deformity

Nature's indication for the treatment of Pott's disease is to put a splint on the back of the patient which will maintain this erect position, for since the tendency of the disease is to curve the affected portion of the spine forward, the center of this curve being anteriorly, our corrective force should be applied to produce exactly an opposite curve to the diseased one, the centre of such a corrective curve being posterior to the column In other words, we must *follow nature's lead and hold the spine erectly* and slightly curved backward, the tendency of the disease being to curve it forward, *and to thoroughly* understand the principle upon which the new brace for *this purpose is constructed, this patient* having a well-defined knuckle is again laid on his back upon a table, the padded edges of which come to the apex of the deformity, the shoulders and head being allowed to fall downward (See Fig 1)

You will observe as the patient's head and shoulders descend, that a partial, but physiological and true extension of the spine is effected, the traction force being all that portion of the patient above the seat of disease This augmented by gravity, produces a backward curve of the spine, most marked at the seat of disease There is also a *tendency to obliterate* the knuckle and this is only prevented from taking place entirely by such consolidation as has become perfected

We have thus produced by this position the two effects we consider to be necessary to successful treatment and have placed the spine in curves the reverse of those it held before this posture was assumed

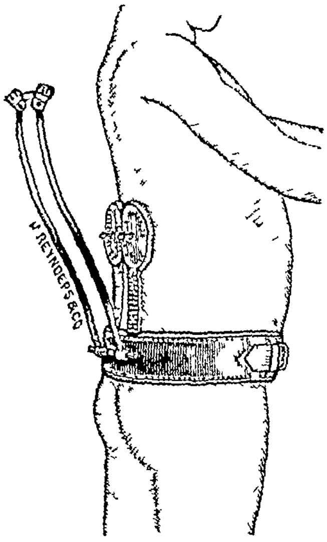

Fig 2 Showing Lever Brace for lower dorsal region before the long arm is strapped to the body the backward angle of the long arm being regulated by a clamp inferiorly

If this position could be maintained indefinitely there would be rapid improvement in the disease , but as this is obviously impossible we attempt to embody in a brace the forces involved, it being for this purpose constructed in two parts The "table" portion of the brace (and by this we mean that portion of the brace which is to produce upon the patient an effect identical with the table, as shown in Fig 1) consists of a firm pelvic band from which strong padded strips pass up on either side of the median line to the seat of disease (see Fig 2) and these form the short arm of the lever

The "backward traction" portion of the brace consists of a back frame secured on the pelvic girth by a ratchet or clamp which allows it to be adjusted at any outward angle, and thus regulates the amount of forward pressure upon the kyphos

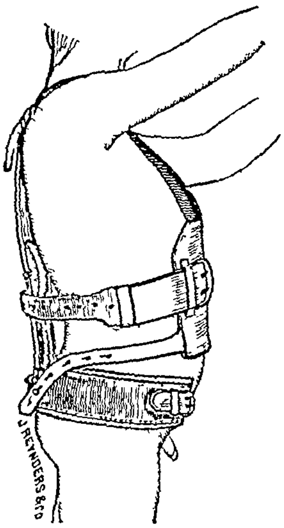

Fig 3 The same strapped to the body the pads there exerting forward pressure at the seat of disease

The angle at which this back frame, or long arm of the lever, is thrown out from the body (see Fig 2) determines whether the brace shall act as a lever or as a simple fixation brace, and the angle between the long and short arms determines the degree of power employed , and when the back frame is set outward at an angle with the short arm and is drawn down to the body and fastened firmly (as shown is Figs 3 and 4) the short arms terminating in the pads press forward upon the transverse processes of the diseased vertebræ with a constant elastic force

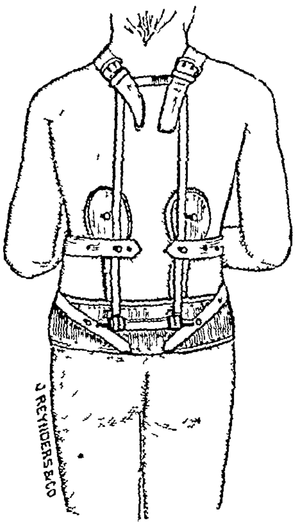

Fig 4 The same (posterior view) The position of the kyphos, if shown, would be between the two pads

There are also other features of this brace which deserve mention It will be observed that if the angle between the short and long arms of the lever is considerable when the long arm is fastened firmly to the body the bending tendency forward of the upper part of the trunk does not cause the spine to give way at the seat of disease, for in proportion as the patient leans forward the short arms press forward upon the kyphos, and oppose a resistance to the bending at that point, so that by the brace a curative automatic effect is produced to keep the body erect, and at the same time prevent further deformity while tending to improve that which already exists Also that the *spring* effect, produced by the setting off of the traction frame, and drawing it forward against the body which is thus held erectly when properly strapped, causes the brace to be held more tightly against the back and ensures a higher degree of fixation than any form of apparatus in use

In the beginning of the treatment it is well to have the traction frame set off at such an angle as to cause considerable pressure upon the transverse processes of the kyphos, and produce thorough extension of the diseased portion, but this angle may be lessened week by week as the case improves, until finally the traction frame lies directly upon the pads, and the brace becomes a mere fixation brace without any leverage whatever

To further illustrate the action of this brace, if a bent lead strip is taken and one extremity held firmly by one hand, with the thumb pressed against the knuckle, it will be found that a force comparatively slight (when contrasted with that used in linear traction to produce not so perfect a result) with the other hand will serve to straighten the rod into its original position, knuckle and all This is precisely what is accomplished by this brace We grasp firmly the lower part of the spine as high as the seat of disease, and then, by force applied above, bend the spine

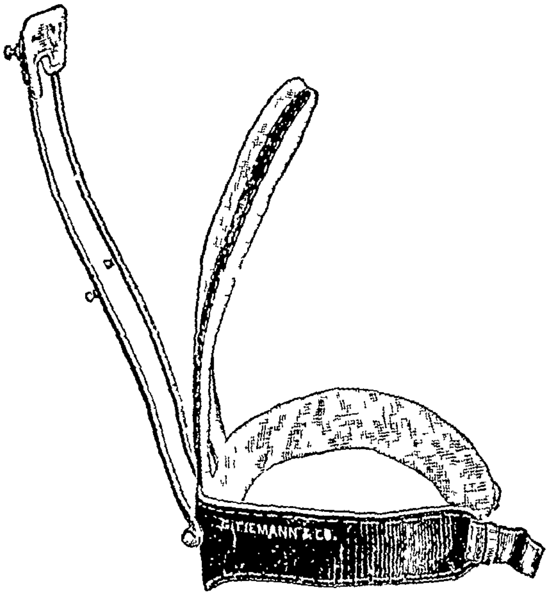

Fig 5 Showing lever brace for middle dorsal region, with straps removed

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The force is so graduated that if leaning forward is attempted, the shorter arms press firmly over the transverse processes adjacent to the kyphos, and exert a forward pressure which prevents the spine yielding at the seat of disease. In no other brace known is this accomplished, and it thereby secures a greater degree of fixation than either of the braces or splints described. If the lumbar region be involved, the short arm of the lever passes from the diseased part to the second dorsal vertebra, and the long arm from the sacrum to the same point, and they are there secured together by an adjustable clamp and connected to the front of the chest by straps and a T plate, the latter utilizing the infra-clavicular spaces and sternum as pressure points, thus preventing interference with or constriction of the soft parts. The braces formed upon this lever plan afford fixation in the erect position and exert forward pressure at the seat of disease, and no posture of the patient can influence or derange the action of the instrument since it is compensatory.

The other systems of treatment described in the course of our lecture have, with a few exceptions, been before the profession for a sufficiently long period to have their merits generally understood, and have been employed with a varying degree of success, but, on the whole, the mechanical treatment of Pott's disease is considered to be in an unsatisfactory condition. There are two requisites which must enter into the consideration of this mechanical problem, if its treatment is to be attended with success, and these are 1st, arrest of the disease, and 2d, obliteration of the deformity.

Nature herself points out the direction in which force should be applied to relieve the diseased bodies and produce curative results.

Who among us has not noticed the position assumed by a patient with the disease in the stage of invasion? The body is held rigidly, the head and shoulders being thrown back as far as possible, and in stooping to pick up an object from the floor, this position is still maintained, the patient having every muscle exercised to hold the spine perfectly fixed and bent backward, the position being very much that of an equestrian "head and chest up, the shoulders held back, and the small of the loins well knit in." Were it possible for the patient to retain this position indefinitely, progress of the disease to the stage of deformity would be almost impossible, but it is a natural tendency in unguarded moments and for the purpose of resting the spine, to bend forward, and bending forward from any cause, removes the weight from the articular processes, and proportionately transfers it to the bodies of the vertebræ and their intervening cartilages. The muscles are unable to continue supporting the spine in its hyper erect position at all times, and consequently the patient bending forward occasionally, causes increased pressure upon the diseased cancellous bodies, hastening absorption of their structure and the formation of deformity.

Nature's indication for the treatment of Pott's disease is to put a splint on the back of the patient which will maintain this erect position, for since the tendency of the disease is to curve the affected portion of the spine forward, the center of this curve being anteriorly, our corrective force should be applied to produce exactly an opposite curve to the diseased one, the centre of such a corrective curve being posterior to the column. In other words, we must follow nature's lead and hold the spine erectly and slightly curved backward, the tendency of the disease being to curve it forward, and to thoroughly understand the principle upon which the new brace for this purpose is constructed, this patient having a well-defined knuckle is again laid on his back upon a table, the padded edges of which come to the apex of the deformity, the shoulders and head being allowed to fall downward. (See Fig. 1.)

You will observe as the patient's head and shoulders descend, that a partial, but physiological and true extension of the spine is effected, the traction force being all that portion of the patient above the seat of disease. This augmented by gravity, produces a backward curve of the spine, most marked at the seat of disease. There is also a tendency to obliterate the knuckle and this is only prevented from taking place entirely by such consolidation as has become perfected.

We have thus produced by this position the two effects we consider to be necessary to successful treatment and have placed the spine in curves the reverse of those it held before this posture was assumed.

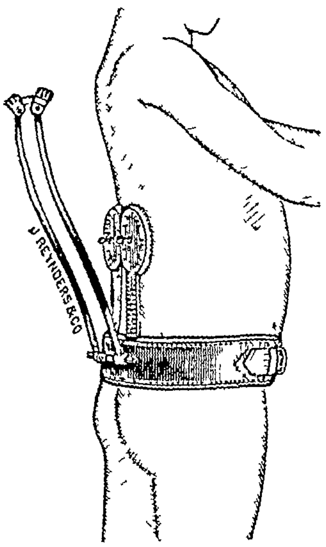

Fig 2 Showing Lever Brace for lower dorsal region before the long arm is strapped to the body the backward angle of the long arm being regulated by a clamp inferiorly

If this position could be maintained indefinitely there would be rapid improvement in the disease, but as this is obviously impossible we attempt to embody in a brace the forces involved, it being for this purpose constructed in two parts The "table" portion of the brace (and by this we mean that portion of the brace which is to produce upon the patient an effect identical with the table, as shown in Fig 1) consists of a firm pelvic band from which strong padded strips pass up on either side of the median line to the seat of disease (see Fig 2) and these form the short arm of the lever

The "backward traction" portion of the brace consists of a back frame secured on the pelvic girth by a ratchet or clamp which allows it to be adjusted at any outward angle, and thus regulates the amount of forward pressure upon the kyphos

The angle at which this back frame, or long arm of the lever, is thrown out from the body (see Fig 2) determines whether the brace shall act as a lever or as a simple fixation brace, and the angle between the long and short arms determines the degree of power employed, and when the back frame is set outward at an angle with the short arm and is drawn down to the body and fastened firmly (as shown is Figs 3 and 4) the short arms terminating in the pads press forward upon the transverse processes of the diseased vertebræ with a constant elastic force

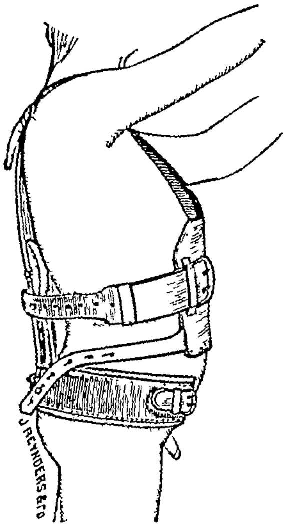

Fig 3 The same strapped to the body the pads there exerting forward pressure at the seat of disease

There are also other features of this brace which deserve mention It will be observed that if the angle between the short and long arms of the lever is considerable when the long arm is fastened firmly to the body the bending tendency forward of the upper part of the trunk does not cause the spine to give way at the seat of disease, for in proportion as the patient leans forward the short arms press forward upon the kyphos, and oppose a resistance to the bending at that point, so that by the brace a curative automatic effect is produced to keep the body erect, and at the same time prevent further deformity while tending to improve that which already exists Also that the *spring* effect, produced by the setting off of the traction frame, and drawing it forward against the body which is thus held erectly when properly strapped, causes the brace to be held more tightly against the back and ensures a higher degree of fixation than any form of apparatus in use

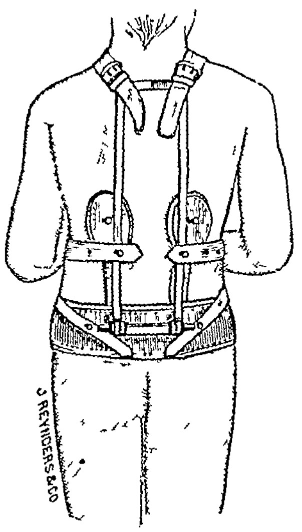

Fig 4 The same (posterior view) The position of the kyphos, if shown, would be between the two pads

In the beginning of the treatment it is well to have the traction frame set off at such an angle as to cause considerable pressure upon the transverse processes of the kyphos, and produce thorough extension of the diseased portion, but this angle may be lessened week by week as the case improves, until finally the traction frame lies directly upon the pads, and the brace becomes a mere fixation brace without any leverage whatever

To further illustrate the action of this brace, if a bent lead strip is taken and one extremity held firmly by one hand, with the thumb pressed against the knuckle, it will be found that a force comparatively slight (when contrasted with that used in linear traction to produce not so perfect a result) with the other hand will serve to straighten the rod into its original position, knuckle and all This is precisely what is accomplished by this brace We grasp firmly the lower part of the spine as high as the seat of disease, and then, by force applied above, bend the spine

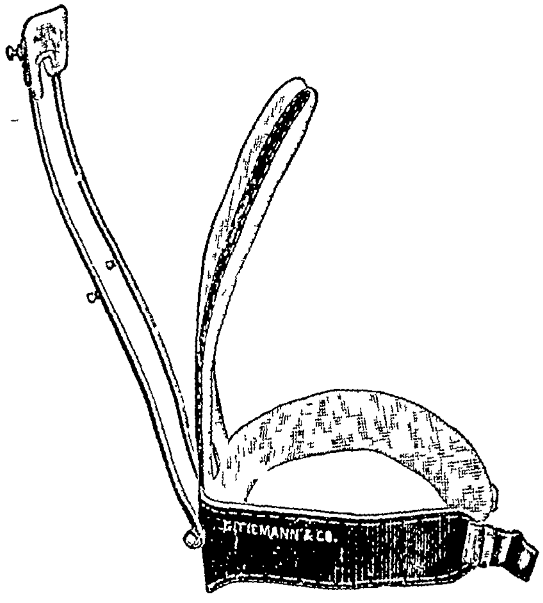

Fig 5 Showing lever brace for middle dorsal region, with straps removed

backward sufficiently to relieve the bodies of the vertebræ from pressure, and at the same time with the short arm of the lever, corresponding to the action of the thumb upon the lead strip, press forward upon the deformity, and thus, by the use of a very light frame-work, we can exert sufficient leverage to retain the spine in the erect position of the equestrian, and as this *backward* force is distributed along the entire dorsal and lumbar spine, while the *forward* pressure is exerted only along the spine from the seat of disease downward, decreasing from the kyphos to the sacrum, it will be found that no injurious pressure is exerted at any one point, as is the case in the Taylor or Chance braces

For the middle dorsal region the short arms of the lever are longer than in the lower dorsal, so as to be opposite the seat of disease, and the brace may be attached by straps, as shown in Figs 5 and 6

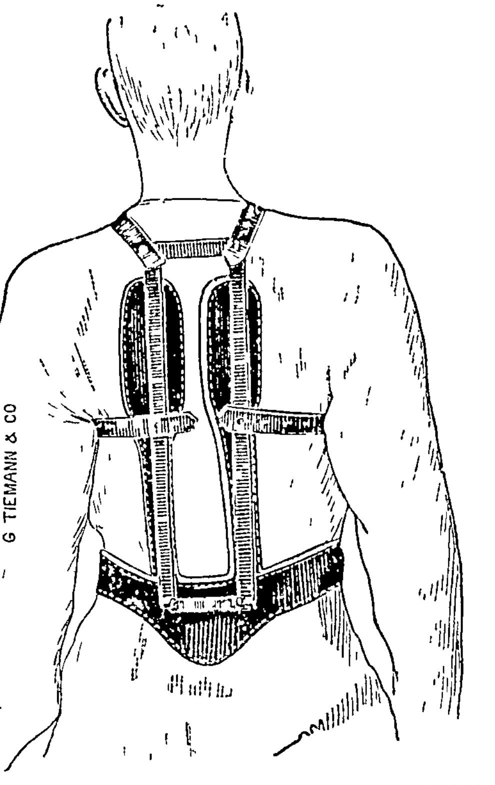

Fig 6 The same (posterior view), after attachment to the body

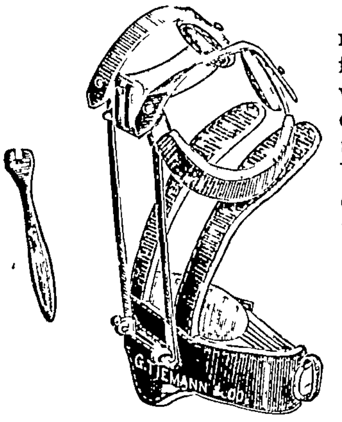

Fig 7 Showing lever brace for upper dorsal region, with infra clavicular pads instead of thoracic straps, for attachment to the body

For the upper dorsal region the straps in front are dispensed with, the attachment of the long arm of the lever superiorly being effected, by padded strips, curved so as to pass under the axillæ and terminating in infra-clavicular pads, which are still better retained in place by straps over the shoulder (as shown in Fig 7) As in the other braces, the short arms pass to the seat of disease, and this makes a very light and effective brace for this region, which is generally considered to be the most difficult to treat mechanically of any part of the spine

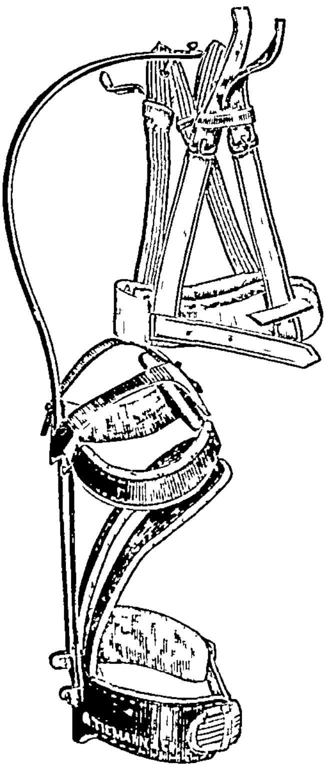

Fig 8 Same with jury mast attachment for cervical disease

For the cervical region or disease of the first and second dorsal vertebræ, the brace just exhibited (Fig 7) should have added to it a jury-mast (as in Fig 8) or a head piece (as in Fig 9), which is provided with facilities for fixing the head firmly in any position, by the insertion in the neck strip connecting the head-piece to the rest of the brace of three clamps, which are so placed as to secure this object The choice between the jury-mast and fixed head-piece in these cervical cases is usually one which the surgeon is called upon to decide for himself, and is to some extent regulated by the gravity of the case, the latter being more effective in caries which is proceeding very rapidly in its course

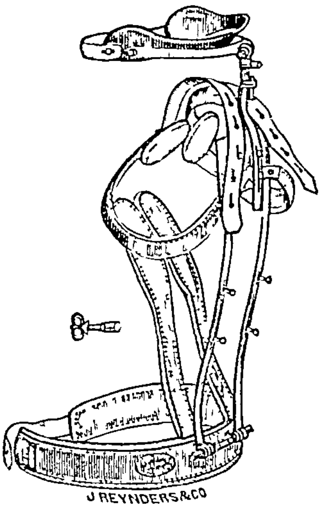

Fig 9 Same, with head piece and clamps in neck strip for fixation in any direction, instead of jury mast.

When the disease is situated in the lumbar, in some cases in the lower dorsal region, and the short arms of the lever are too short to exert sufficient forward pressure upon the kyphos, the lever is reversed, the point of intersection of the long and short arms being placed in the dorsal region instead of over the sacrum In such a brace the base plate is placed in the upper and middle dorsal regions and there secured to the body by appropriate straps From this the short arm lever strips pass down on either side of the spine to the seat of disease where they terminate in pads, the whole being bound down to the body without constriction by a T plate over the sternum (see Fig 12) and the long arm of the lever passes to the sacrum, there terminating in the pelvic girth (see Figs 10 and 11)

When this brace is secured to the body, it forms a V shaped lever which produces extension of the

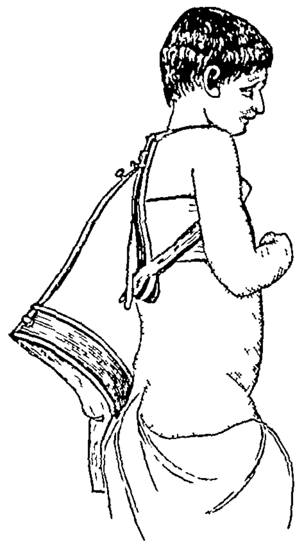

Fig 10 Lever brace for lumbar region with long arm set at an angle with short arm The pelvic girth not yet fastened

bodies of the vertebræ and tends to improve the deformity, while it maintains the spine firmly in the erect position, these being, as we have seen, the desiderata for successful treatment To illustrate this reversal of the lever, so to obtain sufficient leverage to be of use in the lumbar region, a patient is laid on the back upon the padded table, and all that portion of the body *below* the seat of disease is allowed to hang over, just the reversal of the position already demonstrated In this manner also we produce the extension of the spine by means of the backward traction of the lower extremity, and also produce the forward pressure upon the kyphos by the edge of the table It is to sustain these effects when the erect position is assumed that we use the lever brace, and to adapt it to this portion of the spine, we reverse its construction as already detailed

To resume the consideration of the patient before us A brace was constructed for him upon this V lever plan, the apex of the V being placed in the middle dorsal region, and there firmly fixed by a chest-plate and straps so arranged as to secure the base plate to the back without impingement of the soft parts The short arm of the lever passed downward and bifurcated just above the kyphos (see Fig 11), and passing to either side terminated opposite its inferior boundary — In this manner the direct forward pressure of the brace upon the diseased portion, was borne by the transverse processes without pressure upon the kyphos itself

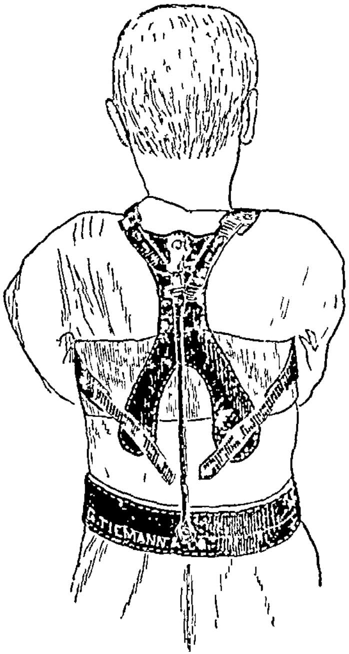

Fig 11 Posterior view of same after pelvic girth is fastened A rotary clamp is shown just below the antero posterior clamp This is used if any lateral rotation of the vertebræ coexists

The long arm passed downward in the median line and terminated in the pelvic band, the clamp at the intersection of the two arms serving to regulate the amount of forward pressure at the seat of disease

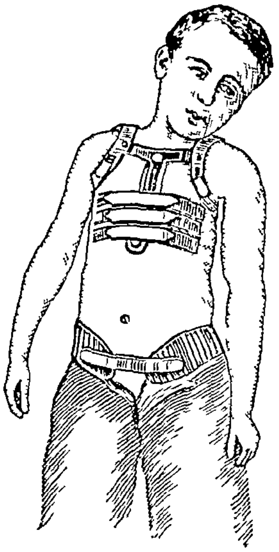

Fig 12 The same anterior view showing T plate and method of strapping

The child is now before you with the brace in position, and as we remove the apparatus and inspect the patient's back, you will see but a slight kyphos, which does not materially increase as he bends forward You will see, as he jumps from the floor at our request, that on alighting, there is no anxious or painful expression upon the face, as there would be if the concussion took place between the vertebræ in an active stage of the disease, and pressure can elicit no points of tenderness

He looks rugged and vigorous, and his stepmother desires to know if he can go without the brace, as he seems to be cured, or, as she expresses it, "just like any other boy," but this we cannot yet advise

We will, however, diminish the forward pressure at the kyphos by decreasing the V angle between the short and long lever, so that the brace will become only a fixation splint of the first class For all practical purposes the disease and its consequent deformity are arrested, and it remains now only to be careful, to restrain the spine for a few months to ensure the improvement becoming permanent, care being taken at the same time, of course, to continue the constitutional measures

There is one more point in respect to the mechanical treatment of these cases which is of prime importance, and that is, the right management

Changes of position during sleep are very apt to cause spinal curves to be assumed which produce compression of the diseased vertebræ, and interfere with the process of repair, and therefore the use of some sort of spinal splint for the night is strongly advised, where the dorsal and lumbar braces already described cannot be tolerated in sleep, and sometimes they can not, although many become so habituated to them as not to have their sleep interfered with, especially if the sleeper lies upon the breast or side A very effective splint may be prepared for night wear by applying a plaster-of-paris jacket during partial suspension

Plaster-of-paris is mentioned first because it is so cheap and procurable, but felt or any other firm, rapidly hardening material will do as well, and this jacket is then to be divided anteriorly and provided with lacings in the ordinary manner So far it does not differ from any other, but the additions which we are about to make to it, to some extent alter its character A pair of thin pads should be placed on either side of the kyphos, posteriorly, and should be attached to the jacket at its edge by strips of metal, which are of a length, equal to the distance from the kyphos to edge of the jacket (P P in Figure

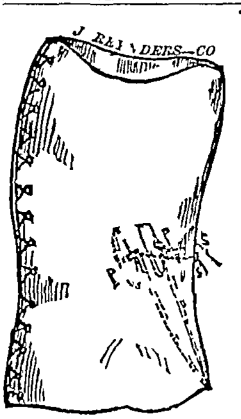

Fig 13 Showing plaster jacket with pads for forward pressure

13) These strips are bent so as to throw the pads inward, and thus become springs to press the transverse processes of the diseased vertebræ forward, when the jacket is applied and laced up, thus producing the effects of the lever brace during the night The forward pressure of the springs may be graduated and controlled by piercing the jacket on either side of the kyphos, and through these passing cords (s s Fig 13) to the pads, so that they may be pulled back against the rear of the jacket, and there secured

This jacket, so modified, is an excellent spinal splint to be used during the day also, since it embodies the principles of the braces just described, and can be recommended for such cases as do not care to use a brace, and also for young children In applying it, draw back the pads and secure them against the back of the jacket by the cords and then when the jacket is laced in front, after being placed on the body, the cords are to be loosened and the pads will then press forward on either side of the kyphos, with a constant elastic force which depends for its intensity upon the strength and angle of the springs by which they are attached to the jacket

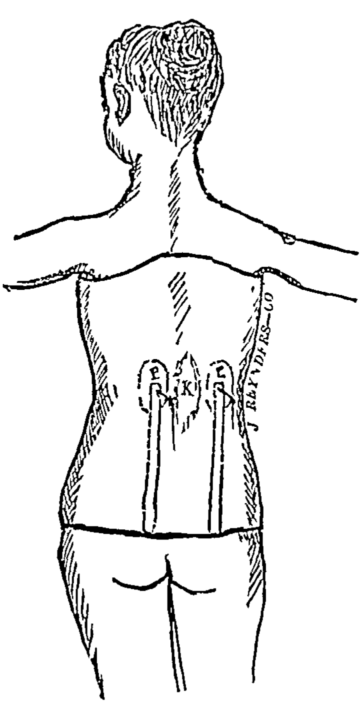

Fig 14 The same applied

(Fig 13 shows such a *lever jacket* with the pads projecting inward and their spring strips attached to the jacket inferiorly, while Fig 14 illustrates the same jacket in position) It is not, however, necessary for the lever or spring effect, that the strip connecting the pads with the jacket should be attached to it inferiorly in all cases, for they may be also attached (although not so advantageously) superiorly, transversely or obliquely, or indeed, in any position so long as the pads are on either side of the kyphos and are forced to exert a forward pressure upon the diseased vertebræ It is perfectly practical also to attach the pads to the back of the jacket opposite the transverse processes of the kyphos, by means of coiled spiral springs, but whatever form of lever or spring is used for its production it is impossible to bring the plaster jacket to its highest degree of effectiveness without the employment of forward pressure at the seat of disease The jacket maintains the body in the erect position, while the pads tend to prevent increase of the deformity and to diminish whatever already exists, until the process of repair and consolidation is complete

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SPONGE GRAFTING

BY EDWARD C BRIGGS, M D , BOSTON, MASS

Read in Section of Oral and Dental Surgery American Medical Association May 1884

In 1879, Mr D J Hamilton, lecturer on pathology, the School of Medicine, Edinburg, prepared a paper "On the Process of Healing," which appeared in the *Journal of Anatomy and Physiology*, Vol xiii He there made the statement and proved experimentally that in a granulating surface there were no new vessels formed, but that the superficial capillaries of the part were pushed upward, as granulating loops, by the action of the heart, the projection being permitted from the fact that the restraining influence of the skin had been removed

Two years later, in the November number of the *Edinburgh Medical Journal*, Mr Hamilton appears with a communication "On Sponge grafting "

He there states that while getting the information for his former paper, he was led to believe that the process of vascularization, as seen on a granulating surface similar to that which occurs when a blood clot or a fibrinous exudation is replaced by a vascular cicatricial tissue, and that the blood clot or fibrinous lymph acts simply mechanically to give support to the projecting loops of capillaries With this idea he searched around for something artificially to replace the blood clot, and hit upon sponge This, he reasoned, was a porous tissue which would imitate the interstices of the fibrinous net-work of a blood clot Being animal tissue it would, like cat-gut or the blood clot, be absorbed under favorable circumstances I will not go into the details of his experiments, although they would be found very interesting Suffice it to say that his experiments justified his theories

He first experimented with the well known chronic ulcers of the leg A piece of sponge, prepared as I shall describe later, was fitted to the sore, the edges of the sponge being tucked in under the indurated edges of the ulcer Over this some simple antiseptic dressing with bandage

Dressed on the following day the sponge was found partly filled with purulent discharge On dressing the second day, there was *distinct putrefactive odor*, and the sponge was washed with carbolic solution The sponge then appeared slightly red at the most shallow parts, and the edges of the wound reached farther inwards over the sponge

The third day the sponge was beginning to adhere to the granulating surface, and at one point looked as though it were beginning to dissolve The fifth day the thinnest parts of the sponge were growing hard and seemed to be filling with organizing tissue ; picked at these parts it bled freely, showing that the blood-vessels had already begun to climb up through its pores

The growth was slow, but at the end of three months only a small piece of the sponge was to be seen The sponge, when originally fitted to the part, was five inches in diameter

One month later, four months from beginning, Mr Hamilton showed the patient to the Medico-Chirurgical Society, with no traces of the sponge to be seen, and a healthy granulating surface of only an inch and a half diameter

This, the first experiment, was satisfactory in every way, proving the theory correct, and showing that sponge would act even better than blood clot, for while a blood clot would have been destroyed by the putrescent condition of the wound, the more resistant sponge did not seem to be at all affected

Since Mr Hamilton's paper, surgeons all over the world have been experimenting with sponge grafting, and many successful cases have been reported from time to time Seeing these reports, the idea suggested itself to me that morbid conditions in the mouth, associated with loss of the soft tissues, might also be benefited by the use of sponge

In giving my experiments I will state just what I did, and not what I should now do after the experience I have had It happened that a patient of mine, Mr N G B , had been annoyed for three years by a deep depression over the roots of the right superior, first bicuspid, the result of a severe periostitis The chief cause of annoyance was that the food was collected there and the pus retained It was not a simple fistula, but a cavity $\frac{1}{2}$ inch deep and $^{3}/_{16}$ of an inch in diameter I had tried in various ways to restore the lost tissue, or at least to narrow the opening down to a small fistula I had made stimulating applications, had created a fresh blood clot to fill the cavity, hoping it might organize, but all to no purpose ; in fact, the cavity tended to grow larger, until I thought of trying sponge

January 26, 1884, I fitted to the cavity a piece of sponge, previously prepared according to Formula number one of Dr Edward Borck, of St Louis The formula is as follows Take a fine sponge, soak it for three or four days in a 20 per cent solution of hydrochloric acid ; squeeze dry, soak for ten days in a solution of iodoform in ether (ʒi—℥i) ; evaporate ether, and keep in an air tight vessel

Having fitted a piece of sponge thus prepared I dismissed the patient

The next day I saw him, and not expecting any success, I attempted to pull out the sponge To my surprise it resisted my efforts I persisted and pulled it out, disclosing a fresh granulating surface which bleed freely

I packed with fresh sponge The next day I again pulled out the sponge, meeting with the same resistance The appearance was the same as the day before excepting that the space had partially filled up with fresh granulations

This treatment was pursued for two months, after the first week Mr B coming only twice a week The sponge would apparently become attached for a day or two, and then would work out, necessitating the application of fresh sponge I never again got so good an adhesion as after the first piece was put in, and at no time did there seem to be evidence that the sponge would organize ; but, either as a stimulant or a support to the granulations, it accomplished what I had failed to do with other means

The patient now presents simply a small opening admitting a probe about three sixteenths of an inch He is not now annoyed by the collection of food or the retention of pus

As I have said, I had previously tried the blood-clot without success, for, owing to the putrescent condition of the sore, it would always come away in a short time without any change in the cavity being noticeable With the sponge it was different The discharge went on through the sponge, the sponge remaining in position and giving support to the granulations which were not in direct line of the discharge

CASE II About the 1st of April, encouraged by the success of my first experiment, I undertook another case

This patient, Mr J B , relates that three years ago, after a separation had been made between his right superior first and second molars, he began to have trouble in the gum About two years ago, while in Honolulu, the annoyance was so great that he consulted a dentist, who lanced deeply down between the teeth He forced the lancet nearly at the roof of the mouth, and drawing it through between the teeth, to the cheek Where this cut healed the parts contracted, making the trouble worse It did not heal, however, between the teeth, and when I saw the patient, a year ago, there was a deep depression between the teeth The gum bled freely on being touched The annoyance was great, amounting sometimes to severe pain I suggested contouring the teeth to protect the gum, but as the teeth were both very sensitive and the operation would necessitate a great deal of cutting, the patient declined

When, the 1st of April, in response to a note from me, I examined him with a view to trying sponge, I found the trouble worse than ever, the hollow between the teeth at one part extending two-thirds up the roots of the teeth

I began the treatment on the 7th of April After wiping the surface of the gum with deliquesced crystals of carbolic acid, and scraping off the slough, I had a fresh, healthy surface to act upon

I had prepared for this case a sponge in the following manner I first cleaned it of its calcareous salts by washing in dilute aqua regia, then allowed it to remain for twenty-four hours in a dilute solution of tincture of iodine, squeezed it dry and put it in a saturated aqueous solution of boracic acid, ready for use

To protect the gum and prevent the dislodgment of the sponge, I had previously prepared a piece of hard rubber made to arch over the opening between the teeth, resting upon the gum on either side Having fitted a piece of sponge to the exposed surface, I painted the gum and the inside of the rubber cap with a solution of resin, and put the cap in position

In three days I removed the cap, syringed the parts, without removing the sponge, with a 1–200 solution of carbolic acid, and replaced the plate as before

Three days later I again took off the plate, and this time detached the sponge It was only attached on one side, but at that point the gum had already grown down a little On dressing it this time, I returned to the use of sponge prepared as for the first case, having an idea that it worked better I have seen the patient twice a week up to the present time The case is progressing very favorably and the cavity is filling up as rapidly as I could wish

With the present experience I should now, in treating such cases, first be sure that the parts were thoroughly cleaned I should have the sponge shaped as accurately as possible, not forgetting to allow for the swelling , for a day or two I should endeavor to keep some pressure upon the sponge to aid in its attachment After that time, I should disturb the sponge as little as possible, simply washing away the discharge with some antiseptic solution I should wait with patience, not expecting to see great progress in a very short time, and have more faith to believe that if let alone, the sponge would really organize, as in Mr Hamilton's cases

In regard to its application, I think it can be applied not only to such cases as I have described, but to all cases where it is desired to reproduce soft tissues I shall try it, and expect success, in the aggravated cases of the so called "Riggs' Disease," where there is loss of tissue about the roots or teeth

DISCUSSION ON DR BRIGGS' PAPER

Dr Williams —It has been my privilege to see the cases upon which Dr Briggs operated by sponge-grafting, and have noted the marked improvement It is certainly new in its application to the conditions mentioned in the paper, and think its usefulness in this direction will be very great

Dr Ailport —I desire to express my thanks to Dr Briggs for the paper he has read, and I intend to try the sponge-grafting on the first case that presents, in which there is reasonable hope of success

Dr Briggs —I am of the opinion that the sponge-grafting may be successfully used in closing certain cases of cleft palate

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OVERDRAFT OF VITAL OR NERVE POWER AS AFFECTING GENERAL AND SPECIAL HEALTH

BY JACOB L WILLIAMS, M D , BOSTON, MASS

Read in Section of Oral and Dental Surgery of American Medical Association May, 1884

The relation of reserve strength or nerve power to the general health, and to the harmonious working of all the functions and faculties, every practitioner has constant occasion to observe To him it is a great source of reliance for continued health, and for permanent remedy of abnormal conditions of organs

The abnormal conditions of different parts of the body have given rise to the various specialties in practice, all, when properly considered, having their relations to the general controlling laws and forces of the system The question may be asked whether, in some departments of special practice, these general laws may not sometimes be too little thought of in all-absorbing attention to local disease?

The relations referred to, it may be proper for the various specialties to elaborate and demonstrate each for itself My present purpose is to make a few suggestions in regard to the influence of reserve nerve force, and the want of it, on some conditions of the oral cavity I say *reserve* nerve strength, for that is what must be drawn on in any contest between health and disease

It is not by a brilliant display of activity, or temporary fortification with artificial tonics alone, that a lasting victory will be gained for health against persistent disease, unless there be within call additional supplies of sustaining and restorative vitality, to meet readily any demands of the case

There is no doubt that a large proportion of people in the artificially active life attending our civilization are maintaining an appearance of fair health while using up all the nerve strength they have every day, leaving practically no reserve, and liable to succumb, as they are constantly doing, at any extra emergency or strain

Indeed, in observing the dental and oral health of individuals, how constantly do we see *persistent* abnormal conditions, which I think can only be accounted for from this fact Such overdraft may be from a constitutional disposition to activity that might be called a nervous diathesis, or from obligatory or voluntary over effort for an object, or from some diseases or conditions of the system drawing greatly on the vital force

Take the very common case of the business or professional man who, from overwork, becomes dyspeptic He is advised to "be careful of his diet," and so forth, which advice he follows punctiliously, still, however, keeping up his usual habits of work, and the dyspepsia is not cured The digestive secretions are not in condition for the healthy and comfortable performance of their office Then rest is directed, and if he takes it in the right way, he becomes better

Now, the idea is not only rational but it seems capable of proof, that not the gastric fluids only, but the secretions of other parts of the digestive system are abnormally affected by the same causes

In such a case as referred to, a greater or less tendency to an unhealthy condition of the oral secretions may be found, which also holding in solution fermentive material, must, as a chemical necessity, sooner or later cause damage to the dental organs

It may be observed that this abnormal state of the oral fluids most commonly follows a continuous rather than temporary over-strain, though I have seen cases of very rapid results from great nerve exhaustion

I would suggest that the condition of the teeth in regard to the degree of their tendency to decay might be one aid, if only as confirmatory, in diagnosis of obscure nervous affections

This relation of cause and effect I have repeatedly seen strikingly illustrated in young persons, who are more readily susceptible in this respect than adults; so that I now commonly expect to find more and greater activity of disease in the mouths of young scholars in the spring and early summer, after a winter season of unremitting application to study and exciting amusements, than in the autumn, on their return from a summer's vacation of leisure and rest There may be no external appearance of variation from standard health, but the greater or less softening of the teeth is very sure to be seen

A case in point, which only represents many actual ones

W M, a lad of 15 years Sept 25th, recently returned in good health from a summer vacation at a quiet seashore place; mouth healthy, teeth sound on approximal surfaces and in the sulci Was advised to come again in four or five months He did not appear till May 18th, following Had been busy and did not like to take the time Said he sometimes felt sensations in eating fruit or sweets On examination I found the teeth, though of normal density looking whiter than last autumn; also found cavities between the superior bicuspids and first molars on both sides, and several cavities in sulci of molars, all of the chalky character indicating rapid acid action To the inquiry, if he had been busy the past winter, he replied that he had been studying very hard to keep a high rank His teeth told the story without the aid of his tongue The same conditions of life were repeated the following summer and the next winter with corresponding results

Another case, of an adult, whose oral health had been exceptional up to forty years of age, being so situated that his ordinary business, requiring no special anxiety, was but an amusement which did not occupy his time very closely; when times changed, and complications and competitions came to engross his constant and sometimes anxious attention

In about a year the teeth began to decay quite rapidly, he complaining sometimes of feeling "nervous," and this condition of oral health has continued, together with his close application to business, for the past eight years The cause and effect seem strikingly evident

A similar condition of the mouth, as well known, very commonly exists during the state of pregnancy, and is often seen when that state might otherwise be called normal The gynæcologist might frequently notice it

A remarkable case occurred under my observation, of a lady of about 44 years, suffering from an ovarian tumor For more than a year she came regularly, at intervals of four or five weeks for observation of the teeth, and there was invariably some new attack of white decay found on them

There is also another pathological condition in the mouth which I have seen to follow or accompany this exhaustion of vital force, viz neuralgic pains at the roots of the teeth, particularly at the roots of the inferior central incisors; though sometimes the pain extends along the line of either jaw, yet with all the teeth having the appearance of health externally, and under the usual tests

When this peculiar neuralgic sensation is complained of, I find on inquiry that there is, or has been, a conscious overdraft of vital force from extraordinary care or anxiety, or excessive effort of some kind Enough cases of this sort to fill another paper might be related, but they would occupy time needlessly, and I will mention but one

Mrs D, about 38 years of age, usually healthy, dental soundness of very good average, after absence of six or eight months called, complaining of thrilling sensations at roots of inferior central incisors; also in upper incisors, and along the line of upper jaw No calculus was found on the inferior incisors, and very little on any of the teeth; no indication of alveolar inflammation; was much exhausted by the little scaling needed She had been anxiously devoted to a sick mother, together with her family supervision, for the past four months

In this relation I have noticed that where the disturbing cause is continuous for some time, the neuralgic condition at the dental roots is apt to be followed by some degree of loosening or unsteadiness of the teeth, even when not accompanied by any accumulation of calculus at the necks, or any evidence of alveolar necrosis That this condition is sometimes mistaken for pyorrhœa alveolaris I have no doubt In such case the heroic treatment sometimes adopted for the latter would be but an aggravation of the malady

The suggestion may properly be made that, although the specialty of oristry has the advantages derived from earnest and accurate chemical and histological investigations, and from increased facilities for acquiring deftness in operative skill, there is yet much room for a more thorough study of the constitutional relations of this department of practice

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THE REMOVAL OF STAINS FROM THE TEETH CAUSED BY THE ADMINISTRATION OF MEDICINAL AGENTS AND THE BLEACHING OF PULPLESS TEETH

BY A W HARLAN, M D, CHICAGO, ILL

Read in the Section of Oral and Dental Surgery of the American Medical Association, May, 1884

GENTLEMEN —A large number of remedial agents administered by physicians temporarily stain the teeth but in looking over the list I find there are but few which may be said to permanently stain them The mineral acids—nitric, sulphuric, hydrochloric, and other acids of this nature, if used for any length of time, may discolor the teeth and likewise have a deleterious effect on them; yet it cannot be said that such agents stain the teeth so that any particular method should be desired for restoring their natural appearance The vegetable series may likewise be cap with a solution of resin, and put the cap in position

In three days I removed the cap, syringed the parts, without removing the sponge, with a 1–200 solution of carbolic acid, and replaced the plate as before

Three days later I again took off the plate, and this time detached the sponge It was only attached on one side, but at that point the gum had already grown down a little On dressing it this time, I returned to the use of sponge prepared as for the first case, having an idea that it worked better I have seen the patient twice a week up to the present time The case is progressing very favorably and the cavity is filling up as rapidly as I could wish

With the present experience I should now, in treating such cases, first be sure that the parts were thoroughly cleaned I should have the sponge shaped as accurately as possible, not forgetting to allow for the swelling, for a day or two I should endeavor to keep some pressure upon the sponge to aid in its attachment After that time, I should disturb the sponge as little as possible, simply washing away the discharge with some antiseptic solution I should wait with patience, not expecting to see great progress in a very short time, and have more faith to believe that if let alone, *the sponge would really organize*, as in Mr Hamilton's cases

In regard to its application, I think it can be applied not only to such cases as I have described, but to all cases where it is desired to reproduce soft tissues I shall try it, and expect success, in the aggravated cases of the so-called "Riggs' Disease," where there is loss of tissue about the roots or teeth

DISCUSSION ON DR BRIGGS' PAPER

Dr Williams —It has been my privilege to see the cases upon which Dr Briggs operated by sponge-grafting, and have noted the marked improvement It is certainly new in its application to the conditions mentioned in the paper, and think its usefulness in this direction will be very great

Dr Allport —I desire to express my thanks to Dr Briggs for the paper he has read, and I intend to try the sponge-grafting on the first case that presents, in which there is reasonable hope of success

Dr Briggs —I am of the opinion that the sponge-grafting may be successfully used in closing certain cases of cleft palate

OVERDRAFT OF VITAL OR NERVE POWER AS AFFECTING GENERAL AND SPECIAL HEALTH

BY JACOB L WILLIAMS, M D, BOSTON, MASS

Read in Section of Oral and Dental Surgery of American Medical Association, May, 1884

The relation of reserve strength or nerve power to the general health, and to the harmonious working of all the functions and faculties, every practitioner has constant occasion to observe To him it is a great source of reliance for continued health, and for permanent remedy of abnormal conditions of organs

The abnormal conditions of different parts of the body have given rise to the various specialties in practice, all, when properly considered, having their relations to the general controlling laws and forces of the system The question may be asked whether, in some departments of special practice, these general laws may not sometimes be too little thought of in all-absorbing attention to local disease?

The relations referred to, it may be proper for the various specialties to elaborate and demonstrate each for itself My present purpose is to make a few suggestions in regard to the influence of *reserve nerve* force, and the want of it, on some conditions of the oral cavity I say *reserve* nerve strength, for that is what must be drawn on in any contest between health and disease

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TEETH

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eth in use should be presented
is time, but it is necessary to
them are faulty and very few use-
In order to bleach a pulpless tooth the operator must first fill the root at least one-third its length All decay should be removed and the fragments of the pulp in the fine angles of the outline of the living pulp should also be removed Discolored dentine if hard need not be cut away With the rubber dam adjusted over the adjacent teeth, including the one to be operated upon, the cavity is thoroughly washed with $H_2 O_2$ repeatedly and then carefully dried by using the hot blast from a powerful bulb syringe A small quantity of chloride of alumina is placed within the cavity, and it is moistened with peroxide of hydrogen and allowed to remain five minutes The deliquesced $Al_2 Cl_6$ is carefully washed out of the cavity with a clear solution of sodæ biboras Na 2, $B_4 O_7$ 10 H_2 O, and the cavity thoroughly dessicated In the vast majority of cases the tooth will have returned to its normal color The cause of the change in color is owing to the complete oxidation of the infiltrate into the tubules and the destruction of the staining of the contents of the tubules The tooth should not be bathed in creosote, carbolic acid, alcohol, or any other substance capable of coagulating albumen Where the operator has reason to suspect that any such agent has been introduced into the cavity, it should first be washed with the clear solution of sodæ biboras, and then followed by the above-mentioned method The rapid liberation of chlorine from $Al_2 Cl_6$ in the presence of $H_2 O_2$, resulting in the formation of H Cl and H O, leaving unsatisfied O and Cl accounts for the speedy destruction of the coloring matters within the pulpless tooth In order to maintain the color an oxy-chloride of suitable color should be used to fill the remainder of the pulp canal, and as large a portion of the unfilled cavity as judgment will indicate, thirty to fifty minutes should be given for the hardening of the oxy-chloride The cavity should be filled with gold immediately It is not wise to allow saliva or other liquids to come in contact with the oxy chloride after it is introduced into the tooth It jeopardizes the permanency of every case when oxy-chloride becomes moist, on account of the speedy absorption of fluids by the freshly hardened filling

DISCUSSIONS ON DR HARLAN'S PAPER

Dr Friedrichs —I used to attempt to bleach teeth years ago, but have not made such an effort in the last ten years If our services are engaged in season, there should be no occasion for bleaching, and I very seldom see a case now that requires such service

Dr Harlan —I have tried all the known remedies for discolored teeth, and think from such experience, that peroxide of hydrogen, combined with chloride of aluminium, are the most successful agents It is important, however, that the drugs be good I think Tromsdorff's peroxide of hydrogen and Merck's chloride of aluminium are the most reliable

Dr Friedrichs —In reference to the stains of nitrate of silver (Ag Nt_3), I prefer to remove them by mechanical means, rather than make the attempt by the use of chemicals A stick and pulverized pumice-stone are all that is needed to effectually remove such stains

Dr Brophy —I would ask Dr Friedrichs if he does not find, in some cases, that the stains have penetrated too deeply to be removed by such means?

Dr Friedrichs —I have used this means to a very great extent, and am entirely satisfied with it I have had a great many patients suffering from "erosion," and find that Ag Nt_3 stains do not penetrate beyond the control of such mechanical means as I have mentioned

MEDICAL PROGRESS

MEDICINE.

The Relation Between the Ingestion of Food and Albuminuria —Dr Stanley M Rendall is publishing an article in the *Edinburgh Medical Journal* entitled "Study of a Form of Albuminuria," in the second chapter of which he discusses the relation between the ingestion of food and albuminuria The effect of an albuminous alimentation on the quantity of albumen present in the urine of albuminurics has been noticed for a long time now as increasing the amount of this principle present after meals But all these reports had reference to the existence of augmentation of the quantity of albumen after nitrogenous food, in individuals who were already suffering from persistent albuminuria But within the last year or two attention has been drawn by various writers to the existence of an *intermittent* form of albuminuria in men otherwise apparently healthy In many cases it being discovered merely by acident, owing to a habit of always examining the urine of every patient that might present himself from any cause, however slight, and in many cases its presence being as much a cause of surprise to the medical man as to the patient, until, as in the case of Sir William Gull, its frequent presence in a certain class of cases ceases to excite either astonishment or alarm, and causes the question to be asked, "What worth were mere statistics of albuminuria since it occurred in young men and growing boys almost as frequently as spermatorrhœa?"

The first cases given in detail are those by W Moxon in the Guy's Hospital Reports, 1878, in a paper entitled "On Chronic Intermittent Albuminuria," and a few isolated and undetailed facts have been reported from time to time in the different medical journals Thus, Sir Andrew Clark says "I knew a case in which albumen occurred in the urine daily for several months, but it was only present in the urine passed after breakfast, and was never, to the time of its departure, present at any other time" "Albumen in small quantities, and unaccompanied by casts, may be present in the urine daily for three years, and at last permanently disappear This occurred in a case under my observation The health, which had previously been bad, rapidly improved after the disappearance of the albumen from the urine, and became ultimately very good" Dr Smith, *New York Medical Journal*, 1880, mentions the case of a medical friend who could produce in his own person albuminuria, lasting eight or ten hours, by drinking a pint of milk Claude Bernard, after having eaten several hard-boiled eggs, found his urine albuminous M Marcacci, of Florence, in the *Imparziale*, 1878, after numerous examinations, came to the following conclusions

1 The constant absence of albumen in the urine of the night

2 The very rare absence of albumen in the urine of the day, and then only at the hours furthest removed from the repasts

3 When the albumen was absent it was easy to make it reappear, on indulging in a moderately active exercise sufficient to increase, notably, the number of the pulse

4 The absence of all varieties of tube-casts, epithelial or others

Dr Rendall quotes seven of Moxon's cases, which show that albumen was not found in the urina sanguinis, that is in that excreted during the night, but was in the urina cibi, that is, in the urine excreted during the day Moxon is inclined to believe that this albuminuria is caused by an irritation of the kidneys by morbid matters contained in the urine, such as the oxalates He thinks also that there may be a connection between the appearance of albumen in the urine and the epoch at which the sexual functions complete their development, when their tendencies are not completely under normal control In one of these cases, at least, there was no connection between the vertical position and the albuminuria, for there was no albumen passed either on rising or immediately before going to bed This invalidates the view that it is due to the increase in the weight of the blood column in the vertical position

Dr R Saundby in some notes on the "Diagnostic Value of Albuminuria" found in 145 out-door male patients of the Birmingham General Hospital, taken seriatim, 105 contained albumen, or 72 4 per cent of twenty eight cases under 30 years of age, who were suffering from debility and dyspepsia, and in whom no definite pathological changes could be discovered, ten, or more than half, had albumen in their urine In the other cases, varying from 30 up to 80 years, only one man, who had no definite pathological changes, was found to have albuminous urine In speaking of some of these patients Dr Saundby says "The microscopical examination has revealed usually nothing In one or two cases there were a few oxalates, and in one or two a few hyaline casts, but the latter especially were quite exceptional As for the statement that spermatorrhœa might account for this symptom, it must be remembered that the seminal and prostatic fluids do not contain any albuminous body coagulable by heat

Dr Rendall continues his article by giving in detail three cases of his own, from which may be given the following as the symptoms of post cibal albuminuria No definite complaint, a general malaise existing for months, perhaps, irritability of temper, moodiness, desire for isolation, apathy, fatigue without apparent cause, unrefreshing sleep, failure of appetite and of memory, haggard and drawn appearance, pale and anæmic complexion, no great loss of flesh, no apparent derangement of the organs. In fact, the symptoms as a whole resemble those of oxaluria, there being nothing to draw attention to the urinary system. When it is examined, however, the intermittent presence of albumen is made out. It is always present in well-marked cases after food, its quantity varying with the amount and quality of the aliments taken. On allowing the urine to stand and cool a cloud of mucus is usually deposited, on the top of which the naked eye can frequently make out a thick, silvery line, showing the existence of oxalate of lime crystals; but if the unaided eye fails, the microscope can always detect the presence of this salt. No tube casts, of any kind, can be found in any quantity; but occasionally, after careful searching, one or two crystalline cylinders can be discovered, looking rather like threads of mucus. The reaction is acid, sometimes very much so, and the specific gravity normal. An important negative point, besides the absence of epithelial casts, is the absence of albumen in the water first passed in the morning on rising from bed, and also that passed at any considerable lapse of time after meals if the bladder has been previously emptied of the urine of digestion. Transpiration, far from being diminished, as is the case in true Bright's disease, is increased in some of the cases. In one of those cited, not only exercise but any unusual excitement produced a sensible diaphoresis. Whether all the cases quoted in this paper from different sources can be classed under the heading of post-cibal albuminuria without bringing in another factor than the ingestion of food, is, from the insufficiency of the observations, doubtful. But the majority bear a close relation, and in Dr. Rendall's cases an exclusive relation, to digestion. The explanations given in some of the cases of an "atony of vessels and nerves"; the presence of morbid matters in the urine, such as oxalate of lime, causing an active irritation of the kidneys; a disturbance of the sexual system reflecting a disturbance to the urinary system, or that the albumen is due to the presence of semen, or to differences in the renal circulation produced by the horizontal or vertical position of the body, are all deemed insufficient to explain at least the majority of the cases.

MATERIA MEDICA AND THERAPEUTICS.

ANÆSTHETICS AND THEIR ADMINISTRATION.—Two very interesting and practical papers on this subject have been read recently before the Medical Society of London by Drs. Woodhouse Braine and Geo. Eastes, respectively, and are given in full in the *British Medical Journal*. Dr. Braine considers anæsthetics when they produce a fatal result as practically divided into two classes: 1. Those which produce death in the double manner, through the circulation as well as through the respiration. In this class must be included chloroform, bichloride of methyline, dichloride of ethidene, bromide of ethyl, ethylic methylic ether, and many others of the chlorine series. 2. Nitrous oxide and ether, in which the fatal result, when it does occur, is due to cessation of the respiration only, the heart's action continuing for some time after the respiration has entirely ceased. The three factors one must consider to choose an anæsthetic judiciously, are: 1. The nature of the operation; 2, the amount of insensibility necessary; and 3, the length of time required. The sickness following ether is accompanied, and often caused by, large quantities of flatus; and as it takes place generally very suddenly and forcibly, it is always advisable to stand behind the patient when holding the basin. Chloroform sickness, on the other hand, is preceded by much more faintness and nausea, and takes place more quietly. Hiccough following an anæsthetic is most quickly stopped by the administration of a very small cup of green tea, without milk or sugar, and, should this prove ineffectual, by small doses of dilute hydrocyanic acid. In giving nitrous oxide the room must be kept as quiet as possible during its administration, and no communication should be made to another person, even in a whisper, which it is desirable that a patient should not hear, as at one particular time during its administration the sense of hearing is rendered morbidly acute, all sound being greatly magnified; and this caution holds good also during the recovery of the patient, as the sense of hearing is recovered before that of pain. To get the full effect of nitrous oxide, it must be given pure, all air being rigidly excluded, and if the patient wear a beard, it had better be wetted, or, what is more effective, have a little soap rubbed on it. Deep snoring and an insensitive conjunctiva are good signs of insensibility, but the most trustworthy one of all is subsultus tendinum of the fingers. Pregnant women, even as far advanced as eight months, take nitrous oxide well. Children with chorea, and people who have had hemiplegia, take the gas well. In phthisical patients, if the mischief be extensive, some caution is necessary, as in these cases the anæsthesia deepens after the removal of the face-piece. It is perfectly safe to administer this agent to epileptic patients.

An anæsthetist is often asked by the surgeon, what time in the day will suit him best? "As early in the morning as you can manage it, 8 or 8.30, if possible;" for patients at that hour require less of the anæsthetic to produce insensibility, and their stomachs being naturally empty, they do not experience any of the faintness that is produced by missing a meal. The nervous system of the patient, at this hour of the day, is in its best condition; for there has not been time, since the patient awoke, for the distressing effects of fear and anxiety to have made themselves felt. The patient should not be allowed to become faint from want of food. Should the operation take place before 9.30 A.M. no food of any kind should be given; but if it be the custom of the patient to take a cup of tea or cocoa about 7, this may be allowed; for, having become a habit, it will be missed, and faintness be produced by its omission. If the operation be between 11.30 and 2 let a light breakfast be taken about 8, if that be the patient's regular hour; but if no meal be usually taken till 9.30 or 10 o'clock, then let breakfast be omitted altogether, and a small cup of soup or beef tea be given three hours before the time of operating

The organs of respiration and circulation should always be examined prior to the administration, 1st, to give confidence to the patient and thereby produce a certain increase of cardiac power and a general quieting of the nervous system and, 2d, to enable one to ascertain whether it is advisable to administer the anæsthetic rapidly or not, from the condition of the nervous system The eyes had better be kept open, to reassure the patient by a friendly nod or kind look and give him confidence Artificial teeth, particularly when attached to a small plate, should be removed It is inadvisable to remove a complete upper and lower set, as then the gums come so close together that the flabby lips and cheeks act as a valve and prevent the ingress of air A quid of tobacco may prove troublesome if not looked after Previously to applying the face-piece to the patient's face the anæsthetist should always apply it to his own, to see that everything is in good working order, and that the patient can breathe through it with comfort Dr Braine did this in one instance where a fine spray of bichloride of methylene nearly choked him and made his face smart for a considerable time Within the last two or three months a fatal case has occurred in a London hospital from an ounce of the anæsthetic being injected through the nasal tubes

With a relaxed uvula the patient must be made to sit quite upright, at the same time bending his head forward The uvula in this position swings freely backward and forward with the breathing, but not touching the pharynx it causes no inconvenience Where perfect quiet is required, and mucus about the fauces renders the respiration jerky, by rubbing the forefinger over the back of the tongue and pillars of the fauces the patient is induced to swallow, and thus get rid of the mucus Dr Braine's usual practice is to produce complete insensibility by means of nitrous oxide, and then to quickly change the face piece for the Ormsby or Dublin inhaler(?), so that the irritation produced by the ether lasts but a few seconds, and the patient sinks to sleep without any struggling whatever The cold produced by the rapid evaporation of the ether is often so great that the sponge becomes frozen and gives off but a small quantity of vapor This is best prevented by warming the inhaler before using it, by placing it in a napkin or large sponge wrung out in hot water The most comfortable position for the patient is lying on the side, with one hand and forearm under the pillow, the shoulders being slightly raised and the neck a little bent, so that the saliva, which is always secreted in large quantities, may run from the lower corner of the mouth and not be swallowed This salivary secretion readily takes up ether vapor, and if swallowed is sure to produce vomiting The easiest way to remedy any faintness coming on after the patient's return to bed, is to raise the lower end of the bedstead, supporting it on the end of a sofa or chair, thus making the head and shoulders the lowest part Two minutes and forty-five seconds is rather over than under the average time it should take to produce complete insensibility

Occasionally a patient breathes very slowly, and holds his breath, apparently for a long time, but if by breathing synchronously with him no discomfort is felt, there is no need for anxiety Dyspnœa occasionally occurs from some thick tenacious mucus hanging about the fauces and epiglottis, and this is most easily got rid of by changing the position of the patient's head from one side to the other, or raising the head somewhat, if not relieved, open the mouth wide, by means of the tongue-forceps, and this, producing the act of swallowing (?), may put matters straight If it do not succeed, pull the tongue well out of the mouth, and cause the patient to make a forcible expiration, by sudden firm pressure on his thorax with the left hand and forearm, such a full inspiration will follow that the mucus is either coughed up or swallowed If the patient be anæmic, he must be carefully watched, more especially if the respiration be full and quick, for insensibility then sets in very rapidly, and if it become too deep, great difficulty will be experienced in getting the respiratory muscles to act properly Great care must be taken that the body and extremities of the patient should be kept well covered and warm during the operation, as the anæsthetic generally produces a good deal of cutaneous action

Ether has one very great advantage over those anæsthetics which tend to depress the heart's action, as secondary hæmorrhage is of very rare occurrence In using chloroform we should never remove the inhaler, but pour chloroform onto it while on the patient's face, or, if we do take it away, it must never be replaced within an inch of the face for the first two or three inspirations The pink mottled rash, which appeared in patches over the patient's neck and chest, and was considered as due to chloroform alone, is to be found with every anæsthetic except nitrous oxide Should much pallor be present, or syncope appear imminent, a few whiffs of nitrite of amyl furnish the quickest means of restoring the heart's action The anæsthetist's bag should always contain a pair of tongue-forceps, a Fergusson's gag, a scalpel, forceps, and tracheotomy tube, and a few capsules of nitrite of amyl After the operation no food of any kind for three hours, and after that not until asked for All nutriment used to be cold until next morning Avoid milk, give beef tea, jelly, and such fruit as grapes and oranges

Dr Eastes' remarks were mainly confirmatory of those of Dr Braine

THE TREATMENT OF RINGWORM —Alder Smith, M B (*British Medical Journal*), gives the following I desire now to call attention to a treatment for recent ringworm, where it does not extend over any large extent of surface It is not a new remedy by any means, but, I believe, a new way of naming a well-known parasiticide I have been trying for some time to find out what vehicle penetrates most deeply in the hair follicles, and think it is chloroform Chrysophanic acid is a very good parasiticide and, though it is insoluble in spirit and ether, yet it is soluble in chloroform Chloroform also dissolves the fatty matter out of the hair follicles, and thus allows the parasiticide dissolved in it to penetrate deeply During the last year I have used a solution of seven grains of the acid to the ounce of chloroform to all cases of recent ringworm, and believe it is the most efficient treatment I have yet tried The small patches should be carefully marked out by cutting the hair very closely on them, and the chloroform solution should be well pressed and dabbed into the places with a minute sponge-mop for five minutes, two or three times a day, according to the amount of irritation produced The aim of the treatment is not to produce scabs, but to get the solution to penetrate deeply The sponge-mop should not be much larger than a big pea, and should be continually dipped into the chloroform bottle, as the solution soon evaporates whilst it is pressed into the diseased spot, and leaves the yellow acid dry on the place Great care must be taken that the solution does not run onto the forehead or into the eyes, and that the person using it does not inhale the vapor I always give full directions about the care necessary in using such a potent remedy, and only employ it to weak places of the disease It is well for the nurse to keep her face away from the sponge, and to use the chloroform in a current of air, and not in a small room The places should be well washed every morning with hot water and soap, to remove any sebaceous matter or crusts, and the hair should be kept closely cut on them till the new hair appears, which is generally in about two or three months, but the remedy should be continued till all the diseased stumps have come out

GONORRHŒA INSONTIUM (BLENNORRHAGIA OF CHILDREN, INDEPENDENT OF SEXUAL CONTACT) —The *Lyon Medical* gives an interesting résume of this subject Prof de Amicis has noticed in children the presence of a spontaneous vulvo-vaginitis with a specific coccus, he believes that the coccus of Neisser can be found in the products of catarrhal inflammations without sexual contact

Dr Kroner has found the gonococcus in two-thirds of the cases of ophthalmia blennorrhœa in new-born children that have been submitted to his examination

Tischendorf has seen in the hospital of Hamburg, children suffering from scarlatina or wearing extension apparatus, *acquire* vaginal blennorrhagia where the gonococcus of Neisser was present without any other affection being present This would seem to show the existence of a spontaneous blennorrhagia in which the presence of the gonococcus went for nothing, being simply a common organism, which might be found in all mucous inflammations

The partisans of the specific doctrine consider that the child contracts the blennorrhagic vulvitis by infection, either during or after birth The reason why there is infinitely less of vulvitis than of ophthalmia, is because all children without distinction of sex are exposed to ophthalmia by the absolute frequency of head presentations, while the girls in the very rare proportion of breech presentations (3–100), are exposed to blennorrhagic vulvitis, the length of the urethra, protected by a long prepuce being the safe guard for boys After birth the chances are equal for the vagina and for the eyes, if a contaminated mother washes the genital organs of a child with the same linen or sponge that she has used for herself In Cazenave's Annales a case is reported where a mother affected with blennorrhagia, took her two girls, aged 4 and 8 years, into the bath with her and communicated the affection to both of them

It seems probable that the gonococcus is the sign of a contagion, independent of sexual contact, but dependent in great part to the contact of the bed, the bath, linen, sponges, and perhaps also the dropping of infected urine outside of the vessel intended to receive it under various circumstances Erosions also, as from scarlatina, or produced by the contact of apparatus, would facilitate the contagion It is difficult at this stage of the question, to admit a spontaneous blennorrhagia, but a greater and greater reserve should be held in the medico legal decision of a blennorrhagia attributed to criminal acts, which might arise from accidental causes

TREATMENT OF THE SOFT CHANCRE BY IODOFORM — Unna finds (*Monatshefte fur praktische Dermatologie Edin Med Jour*)that for the present no remedy heals the soft chancre more rapidly than iodoform, and none with such certainty obviates the occurrence of a suppurating bubo The drawback is the peculiar and suggestive odor, which no combination serves entirely or permanently to mask One cause of the diffusion of the odor is the custom of employing iodoform in powder too much, more than necessary is thus applied, and the powder is apt to be deposited on the clothes during or after application He therefore advises that iodoform dissolved in ether be used The sore is first dried with absorbent cotton, then a drop of the iodoform ether allowed to fall on the sore, and the evaporation of the ether fanned by blowing on it with a hand-ball bellows Thus a thin coating of iodoform is deposited exactly on the ulcer Over the ulcer so coated, he places a small piece of perforated iodoform plaster muslin, which has been brought to perfection as regards its preparation by Beiersdorf, Altona If this appears too thin, a circular band of the same can be wound round the penis, or a strip applied if the ulcer is seated elsewhere Lastly, to conceal the smell, a piece of cotton wool, perfumed by means of a spirituous solution of curnaim, is placed over all If desirable, this wool can be sprayed over with some volatile aromatic fluid When the ulcer occurs in the meatus urinarius, he supplies the patient with a pencil of iodoform composed as follows

℞ Iodoformi .	10 0	
Gummi Arabici	3 0	
Gummi Tragacanthæ	1 0	
Glycerini	1 0	
Aq	q s	Misci fiat bacilli, N 5

These are kept in a little wooden box After voiding urine, the pencil, made pointed, is dipped in water and several times introduced with a screwing motion into the meatus A small piece of the perfumed wool is now passed in between the lips, and a larger piece wrapper round the glans Unna further remarks that these pencils serve as valuable prophylactics against infection from gonorrhœa or soft sore.

THE

Journal of the American Medical Association.

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE, INCLUDING POSTAGE

PER ANNUM IN ADVANCE	$5,00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any date The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, JANUARY 31, 1885

OVARIOTOMY STATISTICS —Our readers will remember that in the JOURNAL of Oct 25, 1884, we published a brief letter from Prof Donald Maclean, correcting a simple error in the date of an ovariotomy alluded to by him in a debate in the Section of Obstetrics and Diseases of Women of the American Medical Association, at the last annual meeting, which was followed in the JOURNAL of Nov 15, by a note from Dr R S Sutton, saying that he had a "Death Certificate" of another case, and asking if Prof Maclean would add this to his previous correction To this the latter replied in the JOURNAL of Nov 29, declaring that if such certificate existed, it was either a gross blunder or a forgery To offset this, Dr Sutton promptly forwarded to us the certificate he held, asking for its early publication It was in the usual form of death certificates used in cities where such are required by law, and on its face gave the cause of death as "*Ovariotomy*" But careful examination showed that it was not signed either by the attending physician of the deceased or the operating surgeon And further information showed that the signer of the certificate had done it to accommodate the undertaker, and had given the cause of death as a "Surgical Operation" without assuming to know or state what kind of operation it was Afterwards some other party, whom we have not been able to identify, crossed out the words "Surgical Operation," and inserted the word "Ovariotomy" without the knowledge of the signer of the certificate In that condition it appears to have been sent to Dr Sutton Of course, *such* a certificate is utterly worthless, except as an example of how carelessly many death certificates are filled, and we refused to publish it

From several sources, including Prof Maclean himself, we learn that the death to which the certificate referred, was that of a lady who had suffered many years, and until near the stage of fatal exhaustion, not from ovarian cysts on tumors, but from such symptoms as are supposed to be sometimes relieved by Battey's operation or technically Oophorectomy, which operation was performed just before the patient died

When we published, a few weeks since, in this JOURNAL, the case of Successful Ovariotomy, by Dr Geo E Ranney, of Lansing, Mich , we had no knowledge of the fact, that the same case had already been reported by Dr E W Jenks, of Detroit, and published in the *Medical Age* of that city The number of the *Age* containing it had escaped our observation Having published the case as reported by Dr Ranney, we could not properly refuse to publish the letters of both Drs Jenks and Ranney, in which each gives his own exposition of facts and circumstances in full, by which we think every attentive reader will infer that as the two gentlemen had mutually participated in the performance of an important surgical operation, they should have equally cooperated in reporting it for publication Having given both parties a full hearing, we do not feel at liberty to encumber our pages with any further personal controversy on the subject

CORRECTIONS In the list of *Permanent Members* of the American Medical Association, published in the JOURNAL for December 27, 1884, the name of W J Herdman, of Ann Arbor, Mich , is incorrectly given as W J Heronnan —The residence of A H Steen, of Cottage Grove, Minnesota, is incorrectly placed in Wisconsin, and I P Klingensmith, of Blairsville, Pa , is wrongly placed at Derry Station, Pennsylvania

In the JOURNAL for January 10, 1885, is a brief paper on the Treatment of Diphtheria, by Dr J W Brown, of New York, which was discussed by many of the members of the Section of Diseases of Children at the recent meeting of the American Medical Association As the report of the secretary of that Section appeared to have been prepared with more care than usual, we ventured to append his notes of the discussion to the paper as published But Dr S C Busey, of Washington, D C , writes us that the remarks attributed to him on page 32 are so far incorrect that he would not recognize them as representing anything he had said

INSTABILITY OF MEDICAL INTERESTS DEPENDENT ON MUNICIPAL OR COUNTY POLITICS —The Cook County Hospital, which is the legal receptacle for the sick poor of Chicago and Cook Co , is under the direct control and management of the Board of County Commissioners, a certain proportion of whom are elected annually

The Board appears to have adopted the rule of electing the members of the medical and surgical staff of the Hospital at the commencement of each year, and of allowing each Commissioner to name one member of the staff While this affords an admirable opportunity for each Commissioner to reward, with an appointment, either his own family physician or such other medical man as may have rendered him most aid in securing his own election, it destroys entirely the stability of the medical staff of the Hospital, and greatly impairs its usefulness for clinical instruction At a recent meeting of the Board of Commissioners, when each Commissioner had named his member of the Hospital Staff, aggregating fourteen, it was found that five of the most active and efficient members of the old staff had been dropped

To obviate this, the Board immediately voted to enlarge the Staff, and elected the *five* as " members at large " At the same sitting eight so called Homœopaths were elected to attend the hospital wards, set apart for their service, thus giving to the Cook County Hospital a Medical and Surgical Staff of twenty-seven doctors of "all sorts "

Numerically, this should certainly be sufficient to prevent any suffering on the part of the poor patients, for lack of professional attendance As if to still further demonstrate the unreliability of anything medical under the control of the County Board, the Central Free Dispensary, which had hitherto been accommodated in the basement of the Rush Medical College, and made useful for clinical instruction, was ordered to be removed to rooms in the College of Physicians and Surgeons, with a good prospect of continuing an annual migration until it has had a brief residence in each of the four medical colleges surrounding the County Hospital square

We allude to these local affairs simply to illustrate the general proposition that no medical college in this country can rely upon any public hospital under municipal, *i e*, political, control for its important department of clinical instruction, and as a consequence, every medical college to ensure permanence, and a high degree of usefulness, must have an adequate general hospital, substantially under the control of its own faculty of instruction Time and experience has compelled both the old and leading medical schools in Philadelphia to erect their own hospitals Progress is being made in the same direction in New York and other cities The Chicago Medical College in this city has from its beginning to the present, had its own ample hospital clinical advantages, wholly independent of municipal or political influence, and the Rush Medical College, which was the first to attach itself to the County Hospital and follow it to its present location, has already practically acknowledged its mistake by procuring the erection and opening of the new Presbyterian Hospital on its own grounds

We claim that a public general hospital located in the midst of a population sufficient to keep, at least, 75 to 100 beds filled with patients, should be regarded as much an essential part of a medical school worthy of patronage, as an anatomical, histological, or chemical laboratory And the advanced students should be divided into suitable classes for systematic personal clinical instruction in the Hospital and dispensary wards, as thoroughly as the Juniors are in the laboratories just named

SOCIETY PROCEEDINGS

REMOVAL OF UTERUS AND OVARIES BY ABDOMINAL SECTION, FOR FIBRO-MYOMATA DEATH ON TWELFTH DAY, FROM SEPTICÆMIA.

BY J M BARTON, M D , PHILADELPHIA, PA

Read before the Philadelphia County Medical Society, December 17 1884.

Mrs K , æt 31 years, was brought to me, last September, by Dr M B Dwight, of Jersey Shore, Pa She was very pale, the face and lips being entirely colorless , indeed, the appearance of the patient suggested the presence of malignant disease She had to be carried to her room on her arrival in this city She had been losing more blood than she should for several years, and for several months she had a daily loss, frequently in quite large amounts, and was losing strength rapidly

On examination a large, hard, smooth and freely movable tumor, evidently the uterus, extending three inches above the umbilicus, was found , by the sound, Dr Dwight's diagnosis of a sub mucous fibroid with extensive uterine attachments, was readily confirmed

As the uterus was entirely out of the pelvis, as the attachments of the tumor occupied more than three-fourths of its entire circumference, and as the remaining uterine wall was much thinned, removal by the vagina was plainly impossible I advised extirpation of the ovaries, if accessible, or of the entire uterus if, on exploration, it appeared preferable

The patient returned to her home, as she preferred to have the operation performed there, to which I agreed, as I considered the mountain air much more favorable for operation and after-treatment than the wards of a general hospital

On September 30 I visited Jersey Shore and removed the growth, assisted by Drs Dwight and Cline, of that place, Drs Detweiler and Youngman, of Williamsport, Dr Armstrong, of Lockhaven, and Dr Orville Horwitz, of Philadelphia

Thorough antiseptic precautions were taken, the hands of the operator and assistants were washed in carbolic-acid solution, all the instruments and ligatures were immersed in a similar mixture, the sponges were washed in a warm solution of the same acid, the abdomen of the patient was washed first with turpentine, then with soap and water, and lastly with carbolic acid solution

I made an incision through the abdominal wall, midway between the umbilicus and pubes, about two and a half inches long, through which I readily drew the right ovary, the left, however, could not be reached Finding the uterus free from adhesions, and movable, we decided to remove it I increased the incision until it ran nearly from ensiform cartilage to pubes, carefully checking all hæmorrhage by forceps and catgut ligatures before opening the peritoneum, the uterus was readily lifted from its bed and placed upright, the left broad ligament was attached posteriorly and the left ovary laid against the spine, showing that it could not have been reached through the original incision The intestines were held away from the uterus and supported by large flat sponges, wrung out of warm carbolic acid solution The broad ligaments were tied in sections with carbolized silk and Thomas's large clamp placed upon the neck of the uterus

Surrounding the parts with sponges, to prevent blood entering the peritoneal cavity, into which so far none had escaped, the uterus and both ovaries were rapidly removed, there being but little tension on the pedicle, we decided to treat it outside

The stump was trimmed so as to leave but little projecting above the clamp, it was transfixed by a large pin and was seared on its cut surface by the actual cautery, the wound was closed by the interrupted suture introduced from within in the usual manner It was not found necessary to make the "toilette of the peritoneum," as, thanks to the care of my assistants, no blood had been allowed to enter that cavity, and, indeed, but little was lost during the entire operation

The uterus was seven inches in diameter and nearly a sphere, it was occupied by a single fibromyoma, which was attached to the entire uterine walls, with the exception of a narrow channel about two inches wide, running from neck to fundus, on section, it presented the usual appearance of such growths, except in its centre, where it appeared to have undergone sarcomatous degeneration, this suspicion was subsequently confirmed on microscopical examination

The after treatment of the case was in the hands of Dr Dwight, from whose very complete notes I take the following points —

The evening of the operation the temperature rose to 102 5°, the pulse to 120, under opium suppositories and occasional hypodermics of morphia, the patient was quite comfortable, she took nothing whatever into the stomach, except small quantities of hot water, and had no vomiting On the second day the thermometer rose to 104°, the maximum temperature observed

On the third day she took some barley water and in the evening some beef-tea, the general condition being improved and improving still more on the fourth day

On the fifth day (Oct 4) the bowels were moved by an enema, opium stopped, beef-tea, brandy and warm milk were taken freely, the patient was quite comfortable

On the sixth day (Oct 5), patient rested well during the night, takes warm milk every three hours, pulse stronger, 120, temperature 101°, patient looks quite bright, natural movement of the bowels

The notes of the seventh, eighth and ninth days are almost identical with the last one read, except that stitches were removed, and on the ninth day there is considerable pus coming from wound, and some swelling of the right parotid gland On the tenth day the swelling of the parotid gland increased, there were evidences of systemic poisoning, and on the evening of the eleventh day she died

At the autopsy, there was no inflammation of intestine, there was no pus found in lungs, liver or kidneys, though there was some in the abdominal cavity—this had probably entered a day or two before her death, and from it the blood-poisoning, which proved fatal, arose

CHICAGO MEDICAL SOCIETY.

A regular stated meeting of the Society was held January 3, 1885

Upon motion, duly seconded, the reading of scientific papers was temporarily deferred, and the following preamble and resolutions were submitted by the Secretary in behalf of the Memorial Committee, upon the death of Dr Chaffee In doing so, the speaker stated that but a few months previously the deceased called upon him, and during the conversation said how well to do he was, and that he hoped soon to be able to take a vacation His auditor was *rather* impressed at the time that what was intended in those remarks, as much as any other, was "the uncertainty of life" Dr Chaffee was elected a delegate to the American Medical Association last year, but professional duties rendered him unable to accept the proffered honor

WHEREAS, It has pleased the Ruler of the Universe to arrest the course of our friend and neighbor, Dr C W Chaffee, while he was yet in the prime of healthful vigor and usefulness, and actively engaged in discharging, as usual, the daily duties of his calling—

Resolved, That in the death of Dr Chaffee, this Society has lost a conscientious and successful practitioner, and a colleague in whose keeping the reputation and interests of any professional brother were safe from harm

Resolved, That the community has lost a genial companion, a faithful servant, a useful and upright citizen, and the sick poor have lost a ready benefactor

Resolved, That this Society extend to the bereaved family and friends assurances of sincere sympathy

Resolved, That these resolutions be incorporated in the records of the Society, and that a copy be forwarded for publication to each of the daily papers of the city and to the Journal of the American Medical Association, and that a suitably engrossed copy be transmitted to the family of the deceased

(Signed)
Flavius M Wilder,
C J Simons,
Wm E Quine,
Committee

"Diphtheria, with Remarks on the Germ Theory, and Treatment of Cases with Alcohol," by Dr G H Chapman, was the lengthy title of the first paper read, which was also extensive, yet the writer did not enter minutely into this subject, but simply gave a few facts which have in his experience proven of value in combating this disease, of which the following extracts have been taken

And first, as to its development Is it local in character, or does it involve the whole system? Both theories have their advocates Perhaps the most recent and well-founded theory is that given by Oertel, and confirmed by others, "that the disease is first local, and afterward develops into a general disease, and moreover, that the infection is kept up by the local disease The micrococci first attach themselves to the pharyngeal mucous membrane, where they multiply and produce inflammation of the adjacent tissues, and the membrane becomes filled with micrococci, which force their way between the epithelial cells The cells begin to die and ulceration takes place, the mouths of the lymphatics open, and the micrococci pass in Early in the disease no micrococci are found in the blood, but after the constitutional symptoms have become severe, masses of them will be found in the vessels, and the germ invades the white blood corpuscles, which after a time will be found filled with micrococci, they will be found in the kidneys, and in the capillaries, forcing their way between the muscular fibres of the heart, and throughout the body, leading to destruction of tissue

"Drs Wood and Formad, of Philadelphia, during their experiments found that when the attempt was made to inoculate animals with the poison derived from an ordinary case of diphtheria, as it appeared in that city, it failed to produce the disease, but when taken from those who were subjects of malignant diphtheria it invariably succeeded in infecting the lower animals They also produced diphtheria with micrococci when cultivated in soups, even to the fourth or fifth generation They further found in ordinary saliva a micrococcus which cannot be distinguished from that found in the membrane from the most malignant case of diphtheria, except that those of the former would not produce the disease, and also that the severity of the poison was directly as infectious as the virulence of the epidemic from which the poison was taken The former gentleman thinks that diphtheria is produced by micrococci that are present in everybody's mouth" These are the conclusions of those who have spent years in the investigation of this subject, with abundance of material at their disposal

If, as they affirm, "micrococci can be found in ordinary saliva which in no way differs from those found in the malignant diphtheritic membrane," except possibly that they are inert, even though found only in the saliva of those who frequent or inhabit an infected district, it would seem to prove that they alone are not responsible for the development of diphtheria There must be conditions for their rapid reproduction which are not yet understood, and may it not be, that these micrococci find in this degenerated or septic condition of the fluids and tissues a good field for growth and development in an active form, and still not be the primary cause of diphtheria?

Be the disease, however, purely local or general in its origin, be there micrococci or no micrococci as a primary cause of its development, the stubborn fact remains that in nine cases out of ten, when the physician is first summoned to attend a case of diphtheria, he finds abundant evidence of general systemic disturbance, varying in degrees of intensity from simple circulatory excitement to the most profound degree of prostration, the same as that which is found in septæmia, and as such we are obliged to treat it

A severe form of this disease manifested itself in South Chicago during the fall and winter of 1881 and 1882 In the first six weeks of the epidemic the writer treated seven cases, with two deaths and one protracted recovery out of three malignant cases The treatment in these cases was, externally, the free use of camphorated oil with turpentine, and applying to the membrane every five or six hours, with a camel's-hair brush, the following

℞	Acid carbolic	ʒi
	Liq ferri sub sulph	ʒiii
	Glycerine	ʒiv
M		

and during the intervals, he directed frequent gargling the throat with a saturated aqueous solution of chlorate of potash Internally, there was administered tr ferri hydrochlor, and quinine in doses suitable to the age of the patient, giving to a child eight years of age, two grains of quinine and six drops of tr iron every three hours In the case which seemed malignant and recovered, dry sulphur was used after the fourth day, blown freely into the throat and nasal cavities after cleansing with the chlorate of potash solution

There had been up to this time about twenty cases in the immediate vicinity, with twelve deaths, other physicians, foreign and local, having no better success in combating the disease than the writer At this time his attention was called to the free use of alcohol in this disease in an article published in the Boston *Journal of Chemistry*, and another article published in the *Eclectic Medical Journal*, of Cincinnati, also to the details of experiments on diphtheritic membrane in Ziemssen's Cyclopædia, Vol 1, p 680, from which it was inferred that alcohol was one of, if not the best, agent to destroy or render inert the micrococci, and he determined to give alcohol a fair trial, and use this remedy diluted with chlorate of potash, as a gargle, every half-hour, always washing the mouth with the solution of potash before the patient took either medicine, food or drink Dry sulphur in the throat and nasal cavities was also used, with the internal use of whiskey sling or milk punch as hot and strong as could be borne, and only to be limited by the amount which could be tolerated by the patient without producing intoxication, along with other agents, as diuretics, anti-febrile remedies, etc , etc , as each case seemed to demand

As a result of this trial the writer reported that his succeeding twenty-eight cases were carried to a successful termination, with one exception, and in none of them was a brush or probang used to the throat

The alcohol, in every case, could be used very strong, and it would almost invariably cause the membrane to shrivel up like burning leather, and within thirty-six to forty hours from time of commencement of treatment every trace of membrane disappeared Tr Verat Viride et Tr Opii Deod were given in some cases for fever during the congestive stage only

During the past two years Dr Chapman has relied on the liquor ferri sub sulph and carbolic acid mixture, applied to the throat with a camel's hair brush twice or thrice a day, or still more frequently This plan he pursued instead of blowing in sulphur with a bellows or through a goose quill The sheet anchor, however, is alcohol in every stage of the disease, and from his experience in using it he is led to think we can secure much better results from this remedy than to rely on the harsher methods of treatment

DISCUSSION

Dr G C Paoli thought the author of the paper was too prone to follow out routine treatment in diphtheria, whereas no such form can be laid down in the treatment of this disease Malignant cases may live only two, three, or at most five days, and this is not the fault of the physician However, alcohol is no new remedy in treating these cases It has been used for years, mostly, though, in the form of wine Alcohol may be given in these cases to destroy fungi or bacilli, on the same theory that it is given as an antidote for snake-bites in those who have been bitten by poisonous reptiles But the question arises will alcohol save cases where there is a fibrous exudation of the tonsils, pharynx and other organs, where it is of an ashy gray appearance, where the maxillary and cervical glands are involved, where a patient has a dusky hue of the face with cyanotic lips, feeble heart and feeble pulse, fœtid breath, hyperæmia of the brain, etc? He should hesitate about giving the remedy, on general principles But instead, the first thing that should be done is to use antiseptics, as oil of eucalyptus, which will destroy the bacilli For young children we should use it with an atomizer, for they cannot gargle their throat Where there is ulceration of the nasopharyngeal space, hæmorrhage may set in, if so, nothing will check it Internally we should give tr iodine in water, say four drops every hour to a child five years of age, and apply with a probe or brush to the throat any of the well known antiseptics It is no use to give them quinine and tr iron, for these remedies they cannot take, and besides they interfere with the secretion of the kidneys and liver He would like to speak upon some of the sequelæ of diphtheria, as paralysis of the larynx, septic poisoning, spinal difficulties, etc , but he believed the paper did not dwell upon these

Dr R Tilley desired to add his testimony to the special value of tr iodine in these cases, although no one individual remedy can be used in all of them He also thought corrosive sublimate was beneficial, and he placed great reliance upon it But he preferred the use of hot baths in the early stage of this disease as being beneficial to facilitate profuse perspiration instead of using tr veratrum viride No one disbelieves but what bacteria is a causative agent of this disease He is satisfied that this is true

Dr J J M Angear —The "microscopist" has settled it, that micro organisms or microbes are a cause of diphtheria Alcohol, as is well known, destroys vegetable growths A fifteen per cent solution of alcohol prostrates or paralyzes them, and if the remedy is continued it would kill them He therefore thought it a good local application But these germs flourish best in a high temperature We cannot get alcohol as strong as a fifteen per cent solution to circulate in the blood Therefore how does it kill them when the blood contains them? Then, too, why the utility of administering alcohol and veratrum? Do not these remedies antagonize each other? There is harmony between the germ theory and the local use of alcohol But he would think cold applications were preferable to hot drinks, or preferable to hot baths, for the reason that germs flourish better under a high temperature

Dr A Leigh —In an experience of treating between 100 and 120 cases of diphtheria during the past four years, stated that of all agents *per se, hot or cold,* there was none better than a concentrated or dilute preparation of the perchloride of iron , but where a case is truly malignant, and where there is purpura hæmorrhagica, no treatment will save them Alcohol, hot or cold, is a good cardiac stimulant, but quinine will do the work better A tincture of the preparation of iron just alluded to would produce contraction or hardening and shriveling of the membrane There is no possible doubt but what micrococci are present in the throat in this disease Therefore, if these cases are seen early, and if the iron is applied, a benefit will be derived, except where the case is profoundly malignant He thinks tincture of aconite is superior to veratrum to bring about free diaphoresis

Dr H J Reynolds had come to the conclusion that there were no remedies that had a specific effect on diphtheria, whether it was of germ origin or not, the most that could be done was to rely upon supporting measures to help the patient along until the disease subsided If the membrane enters the larynx, he advises inhalation of steam He thought no benefit would be derived from alcohol or veratrum. Where the disease is malignant at the onset, as he had seen cases, with a pulse of 190 per minute, no treatment was beneficial

Dr W H Curtis inquired of the last speaker how he managed to count the pulse when it arose to 190 per minute?

Answered meekly and politely, "By the watch"

Dr A Goldspoon said that he had treated one hundred cases of diphtheria during the past two years He alluded to the constitutional disturbance as not being solely due to the amount of local invasion in all cases He had seen great constitutional disturbance present when the local signs were quite insignificant, and cited a case of this kind occurring to a little girl who died in ten hours from the time she was attacked The system was so depressed that she died of heart failure In such cases it would be reprehensible to administer aconite or veratrum To reduce the temperature he relies upon quinine Alcohol cannot be given sufficiently concentrated to act throughout the circulation as a germicide, constitutionally It may do good as a local agent, but the former idea, he thinks, is surely inconsistent

Dr Paoli—It is a historical fact that diphtheria appears in countries and at a season when the temperature is very low, and the disease is equally as destructive Alcohol may prove beneficial in some cases that are peculiarly asthenic

The President recited an epitome of Morrill McKenzie's views upon the pathology and treatment of diphtheria, and Dr Chapman closed the discussion by stating that it was difficult, and even impossible, to produce intoxication in a patient having diphtheria He claimed that by treating cases this way paralyses were less liable to follow He is sure it also quiets the cerebral symptoms, such as delirium, and does not increase hyperæmia of the brain Regarding the administration of veratrum and alcohol alternately, he does this during the first, or congestive stage, or until perspiration is well established His experience and success with this treatment have been far better than brother physicians of his neighborhood had been who did not treat their cases similarly He certainly would continue to do so, even if it did appear to be in discord To continue giving alcohol, in the form of whisky, we should commence early, and by so doing the fungi are destroyed, and we prevent their entering the blood vessels by using the remedy freely and constantly, or if a few do enter the circulation it was not so bad as if they passed in in swarms

The following is an abstract of an article on "Manganese as a Remedy in Menstrual Troubles," by Dr Franklin H Martin

Manganese was first recommended as a remedy for amenorrhœa, in an article published Jan 6, 1883, in the *London Lancet*, by Ringer and Murrell After a goodly number of experiments upon dispensary and private patients the results of the writer's investigations were published in the *New York Medical Record*, September 29, 1883 That report elicited considerable correspondence, giving the results of the investigations of others Dr Martin has continued his experiments with considerable zeal, ever since, and he thinks he is able to add much confirmatory evidence to what has already been said He is convinced that manganese will relieve certain forms of menorrhagia and metrorrhagia, as well as amenorrhœa As these several conditions are dependent upon so many different causes, it is very necessary for us to discriminately point out the exact conditions in which manganese is indicated

From his observations, he is led to consider manganese in *any form a direct stimulant to the uterus and its appendages* Its influence may be exerted by acting as a direct vaso motor nerve stimulant to the vascular system of these organs, and in consequence of improved circulation it directly increases the tone and nutrition of the organs, or it may exert its whole force through stimulation of the sexual nerve ganglia, or even, possibly, the *sexual nerve*-centers, thereby bringing these organs to their normal state of action At any rate its action is prompt and direct in bringing the uterus and appendages to a normal state of menstrual tonicity, when lack of tone is dependent upon some previous depression of innervation

In the following typical cases, one may see that even when the cause of the depression is still acting, this remedy will exert its stimulating power on the menstrual mechanism

Case I is that of a young woman, 18 years of age In consequence of phthisis, had not menstruated for four months Experimentally, she was given permanganate of potash As a result, menstruation occurred within a week

Case II Another young woman, 24 years of age, with an aggravating digestive trouble of some years' standing, had become very irregular, she would flow profusely for a week or two, then scantily for an equally irregular period, again, perhaps, followed without warning by a profuse flow, or, as likely, with complete cessation This state of affairs had continued for more than a year She had no dysmenorrhœa Patient was very weak and anæmic from indigestion and loss of blood She was given two-grain doses of permanganate of potash night and morning, dissolved in hot water The menstrual irregularity left her immediately, and she improved in general health at once

In young girls who are irregular in the early months of menstrual life, where it is caused by natural weakness of the partially developed organs of generation, or when, from an over-worked nervous system, the organs are robbed of their natural nerve force, permanganate of potash seems to possess the stimulating properties requisite to bring about healthy action The following is a typical case of this kind A young woman who had menstruated once, sought advice Eight months had passed and the flow had failed to appear again The permanganate was given in two grain doses twice a day Within a week she menstruated the second time in her life In two other cases of "missing menstrual periods" in young girls, without any apparent cause or any other symptoms, the remedy was given in the same dose before the next regular period was expected, which stimulated the organs to a normal flow

Since the above cases were reported, he has had many opportunities of testing the drug in similar cases, and invariably with good results From exposure to cold the weakest organs of the body will be most liable to suffer A woman who is thus exposed immediately suffers from suppression, cessation, or excess of the menstrual flow, she will invariably be found to possess susceptible and weak menstrual organs In cases of this kind, caused by "taking cold," with no other apparent cause, the most gratifying and prompt results are obtained from manganese The last described variety of cases are of so frequent occurrence that many opportunities have been offered to test this remedy, and not yet is there a failure to be recorded in either amenorrhœa or menorrhagia, when due to irritation from the effects of cold alone In several cases where the flow was a week or ten days "overdue," caused by cold, the permanganate was given in large doses, and its almost magical effect was demonstrated by the flow appearing within twelve hours

Manganese is an efficient remedy for certain forms of *menorrhagia* and *metrorrhagia*

Although menorrhagia and amenorrhœa in their outer manifestations are exactly opposite in nature, they are very often dependent upon the same causes When the cause is anæmia, or any depressing constitutional disease producing a perversion of the functional activity of the menstrual organs, and this perverted action consists of an irregular or excessive flow, this condition will as readily yield to the stimulating effects of manganese, as when the opposite condition exists The following cases are of interest

A woman, aged 26, sought advice for excessive and irregular flowing She had been married two years, she had one child twelve months old, which was large and strong, while the mother physically was of slight build, yet she nursed the child ten months and stood the strain very well, until she began to fail Suddenly she grew weak and anæmic and began to flow excessively This continued with but a few short irregular remissions until she called at the South Side Dispensary, where she was given two-grain doses of permanganate of potassium four times a day All other treatment was discontinued In three days the patient returned saying that the flow had stopped the next day after receiving her medicine She continued treatment and received permanent relief

The next case of interest was that of a large, stout woman, 35 years of age, who came to the Dispensary suffering from menorrhagia Menstruation was regular as to time, but quantity of flow was alarmingly excessive She is married and has three children, youngest 3 years of age This abnormal condition of menstruation had been coming on by degrees for a year The uterus was slightly enlarged and soft to the touch, otherwise, on making a physical examination, nothing abnormal was noticeable Four days before the expected flow she commenced taking the permanganate, in two grain doses, three times a day Menstruation came on at the expected time, and after a normally free flow for four days it passed off naturally The treatment was repeated at her subsequent periods with the same result

The above histories were written a year ago Since that time many cases of menorrhagia and metrorrhagia have been observed to succumb to the effects of manganese

The above cases illustrate well the almost magical effect of this drug upon the menstrual organs as a stimulant, and if it is properly given, much good can be obtained from its employment

Dr T Gaillard Thomas said very recently in an address delivered by him, "Permanganate of potash as an excitant of the menstrual flow is, I think, the best emmenagogue which has yet been discovered"

Dr Robert Bartholow, in a recent article on permanganate of potassium said "The powers possessed by permanganate of potassium as a general stimulant are well exhibited in the active emmenagogue, properties which it has been shown to possess by Drs Ringer and Murrell In cases of amenorrhœa, due to deficient activity, it seems to promote the function in a remarkable degree The same power which can so stimulate the sexual functions, must, when exerted in other directions, prove equally effective"

Although manganese, like the allied metals, nickel, zinc, iron and silver, has a direct influence on the blood as a tonic in anæmia, chlorosis, etc, it cannot be possible, in the writer's opinion, that its peculiar influence on the catamenia alone depends upon that virtue, for its action is too prompt To influence the organs of menstruation by acting as a general tonic, would necessarily be a slow process From the testimony of good authorities, however, it undoubtedly acts as a general tonic

Manganese can be administered in the form of permanganate of potash or the binoxide of manganese The permanganate of potash should be administered dissolved in water, and when possible, it should be taken after eating It can also be taken in dry gelatine capsules However, when given diluted, it is less likely to irritate the stomach The binoxide, although less liable to be absorbed by the stomach, on account of its insolubility, is not irritating, and can be readily administered in pill form

Dr Paoli stated that the remedy so highly lauded in the paper, he thinks was first used in London three years ago During the past two years he has tried it in a number of cases, and found it a very serviceable remedy in many cases of disordered menstruation resulting from the bad effects of either cold or dampness, yet in a number of cases the drug proved to be of no value whatever In one case he cited, the remedy was taken in one-grain pills three times a day, for a month In another case he used it two months before menstruation appeared He has also in several other cases given it in two-grain doses, but for a much shorter duration

Dr J Haven said he had used manganese in more than fifty cases, the majority of which were cases of suppressed or retarded menstruation caused by the result of cold, and he was much pleased with the results he had obtained

Dr H J Reynolds had never used the remedy, but certainly should prescribe it hereafter, after having heard the interesting paper read containing so much evidence in its favor

The Society then adjourned

LISTON H MONTGOMERY

STATE MEDICINE

HEALTH IN MICHIGAN, DECEMBER, 1884.

Reports to the State Board of Health, Lansing, by observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of December (5 weeks ending Jan 3), 1885, as follows

Number of Weekly Reports Received, 234		For Preceding Month
Diseases Arranged in Order of Greatest Prevalence	Per Cent. of Reports Stating Presence of Disease	Per Cent of Reports Stating Presence of Disease
Rheumatism	77	70
Neuralgia	72	72
Bronchitis	70	67
Tonsillitis	56	58
Consumption of lungs	54	58
Intermittent fever	53	60
Influenza	52	42
Remittent fever	40	44
Diarrhœa	36	46
Pneumonia	34	29
Erysipelas	25	27
Inflammation of kidney	23	2
Typho malarial fever	21	35
Diphtheria	19	19
Inflammation of bowels	17	19
Whooping-cough	17	13
Typhoid fever (Enteric)	16	22
Scarlet fever	15	13
Membranous croup	10	10
Cerebro spinal meningitis	9	4
Cholera morbus	6	12
Dysentery	6	10
Puerperal fever	5	6
Inflammation of brain	5	8
Measles	4	6
Cholera infantum	3	8

For the month of December, 1884, compared with preceding month, the reports indicate that inflammation of kidney, influenza, and rheumatism increased, and that typho malarial fever, diarrhœa, and intermittent fever, decreased in prevalence

Compared with the average for the month of December in the six years, 1879–1884, inflammation of bowels, cerebro spinal meningitis, influenza, neuralgia, and erysipelas, were more prevalent, and intermittent fever, diphtheria, consumption of lungs, pueumonia, and membranous croup, were less prevalent in December, 1884

For the month of December, 1884, compared with the average of corresponding months for the six years, 1879–1884, the temperature was considerably lower, the relative humidity was more, and the absolute humidity and the day and the night ozone were less

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of December, 1884, at 49 places, namely Amsdon, Armada, Ann Arbor, Byron Center, Bruce, Boardman, Bloomingdale, Constantine, Cadillac, Detroit, Danby, Dowagiac, Emmett, East Saginaw, Franklin, Green Oak, Grand Rapids, Genoa, Hanover, Holly, Hudson, Hastings, Harrisville, Ingham township, Ishpeming, Kalamazoo, Lowell, Meredith, Muskegon, Marengo, Manistee, Northville, Owosso, Orange, Orleans, Pinconning, Pontiac, Porter township, Port Huron, Quincy, Royal Oak, Richmond, St Johns, Texas, Vassar, Venice, Vernon, Watervliet, Wyandotte Scarlet fever at 36 places Armada, Albion, Brockway Center, Carson City, Detroit, Dowagiac, East Saginaw, Freesoil, Fawn River, Grand Rapids, Grand Haven, Garfield, Hanover, Howell, Ida, Ishpeming, Ithaca, Kalamazoo, Leavitt, Lansing, Leelanaw, Manistee, Muskegon, Negaunee, No Muskegon, Northport, Owosso, Pontiac, Quincy, Sears, So Haven, Texas, Thornville, Westphalia, Whitehall, Wyandotte Measles at six places Detroit, East Saginaw, Fawn River, Grand Rapids, Port Huron, Whitehall Small-pox at South Boardman

HENRY B BAKER,
Lansing, Jan 9, 1885 *Secretary*

FOREIGN CORRESPONDENCE.

BERLIN LETTER.

BERLIN, Dec 20, 1884

Every practitioner here seems to be a thoroughly good pathologist, and it is quite common for a professor to prepare some elaborate microscopical slide while conversing with his pupils Thus it was at Prof Fraenkel's clinic the other day He had reason to suspect some pulmonary trouble in a patient, and in a very few moments he had prepared an excellent slide of the bacillus tuberculosis In the same way Prof Senator gave a most interesting account of the pathological history of interstitial hepatitis, and its relation to heart trouble Wolfe's public lectures every Monday afternoon, are full of practical points for the cultivation of bacilli, and their microscopical demonstration Prof Fritsch extends the courtesies of his laboratory to any physician interested in special work, he himself is engaged upon icthyological inquiries Dr Rabe Ruckard in his course of normal histology, begins with the organs on Jan 2, having finished the tissues, and Dr Immanuel Munk gives a private course to physicians in physiology with microscopical demonstration every Wednesday and Saturday evening, from 5–7 Dr Waldeyer's course does not begin until March The practical course in the physiological laboratory with vivisections has been discontinued Prof Kronecker having been called to Berne, Prof Du Bois Reymond and Prof Munk give didactic and experimental lectures The faculty and Dr Schweninger are still at sword's point The Dean, Prof Dr Leyden, went to Munich, where Dr Schweninger, as Privat Docent, had been employed in the University, and established beyond question of reasonable doubt, the truth of the many damning rumors which had followed Bismarck's physician to Berlin He submitted everything, together with the reasons which rendered it necessary for Dr Schweninger to leave Munich, to the Prime Minister, but it is doubtful if any action will be taken Meanwhile to the disgust of many the "anti-fat" doctor keeps a firm grip upon his honorary position as "Professor of Dermatology" in the University Koch has confirmed the experiments of Nicati and Rietsch, and has produced cholera in the lower animals by inoculation of the coma bacillus Of the German valuation of modified listerism, there can be but one opinion Everything surgical is done under full antiseptic precautions, and I have yet to hear of any carbolic acid poisoning, even though Dr Martin's laparotomy room is so surcharged with the spray that seeing is difficult, and many students have been unable to stand it The good results attendant upon some of the most unfavorable cases are due to no other cause, for, as a rule, German operations are not as cleanly as those in America Their technique is not any more commendable, and their facility no greater than that which characterizes our own operators Everything is done under the spray—not playing, necessarily, upon the patient, but the operating-room is kept well filled with the carbolized spray Thornton's late results in London, together with continental results and customs, are strong points in his argument against Tait, which argument, on both sides, is somewhat stripped of its interest and permanent scientific value by the bitter personalities which mar its every sentence Another great advantage is the arrangement of the laparotomy rooms, the detail of skilled assistants, and the constant association with every variety of disease calling for surgical interference The operating rooms at Charite, in Artillerie street, and at Dr Martin's private hospital, have stone floors and walls, all of which can be washed down with carbolized water, or the room can be flooded with the disinfecting fluid, if so it is willed The patients operated upon are taken to similar rooms, entirely shut off from other parts of the hospital There is even a broader field here for conservative gynæcology than there is at home Landau is making a brave single-handed fight, and for so young a man has achieved much He has a large practice, and an influence that is constantly widening He is partially supported by Gusserow, but Schroder and most of the others are quite bitterly opposed to him He is, however, a man of parts, and is leaving his impress upon German literature I cannot help thinking that Dr Landau's logic is conclusive, and that his conservatism is really more scientific and of more permanent value than the unending round of operations that characterizes German gynæcology I have heard it said that Americans were prone to resort over frequently to Emmet's operation, and I think there is truth in the assertion, but as compared with the way in which cervices are amputated in whole or in part in Berlin, for lacerations and erosions which I am convinced could be treated more rationally upon the conservative plan, our operations are only as drops in the bucket It seems to me that at this pace the number of women in Berlin with normally preserved uteri must be extremely small, indeed, the students have a saying there is not a woman living on the same street in which Dr Martin's hospital is situated who has an entire cervix uteri The temptation to resort to operation for the glory of publishing statistics and for achieving professional renown is a great one, and is inflicting incalculable injury upon gynæcology But he achieves far more, ultimately, who waits patiently and conquers symptoms by well-regulated treatment

H R B

DOMESTIC CORRESPONDENCE.

To the Editor of the Journal of the American Medical Association

In the Journal of the 3d inst appears a statement from Dr E W Jenks, of Detroit, claiming to have been the principal in making an operation which I performed and reported to the Journal of the 29th of November last Dr Jenks says "I was waited on by Dr Ranney on the 6th of October last, and received from him a description of the case referred to, and a statement of his relations to it He had assumed charge of it, and had advised an operation, which he had engaged himself to undertake It was one the importance of which he fully realized, and the realization convinced him of the advisability of having present at the operation some operator of experience "

This much is true, though I did not call upon Dr Jenks with the intention of asking him to be present at the operation I had not seen him since his removal from Chicago He had written me from Chicago a friendly letter announcing his purpose of returning to Michigan In view of our old acquaintance and cordial relations I called on him, as stated above In the course of the conversation at the time, I mentioned to him that I was going to perform ovariotomy on the next day but one The doctor asked me if I had everything I wanted I replied by saying that I would have before leaving the city "Have you a large steamer?" asked the doctor I said that I had not, but had small ones which I intended to use "Mine is all in order," said Dr Jenks, "and you can use that " He seemed to *want* me to take it, and I was "charitable" enough to do so I said I would have to provide myself with a larger trocar than I had, and he said that he had an extra large one which he would lend me He spoke of some other instruments it might be desirable to have in certain emergencies He was very cordial and his hospitality was ample I finally said ' Doctor, there is not much money in this case, and, while I do not want to insult you, I will say that if you will come down and help me, I will divide what money comes out of it " He accepted the offer I invited him, however, as a matter of professional courtesy and professional policy, knowing that should the case result fatally, "every fool would be meddling," and ' busybodies speaking things which they ought not " I was treating other patients at Grand Ledge at the time, and could manage the case in question with less trouble than I otherwise could In the course of the conversation, from something the doctor said, I feared, that, on the strength of my invitation, he considered himself "engaged to operate," as he states in his letter to the Journal So, in order that there might be no misunderstanding, I said "Doctor, I expect to *operate* myself, I want you to help " He then asked what part I wanted him to do I said, "Whatever may be required as we go on with the operation " He then remarked that he presumed there would be enough for both of us to do Said he "I would like to make the first incision." To this latter remark I made no reply, nor did I deem the matter of any importance, though he has since urged it as a strong point. There was nothing said about my not wanting to "appear as a dead-head in the enterprise," nor did I ask him to "let me do as much as possible."

Before leaving Dr. Jenks' house, I said to him that it might be well, if he had no objections, for me to take along the trocar, so that I might have it in case he should not come. He replied by saying that he would come. Early on the day of the operation I visited the patient, but before leaving Lansing, arranged with Dr. Post to come later on the cars, and that in case Dr. Jenks came to accompany him to the residence of the patient. Dr. Post asked me if the operation would be delayed in case Dr. Jenks should not come? "Certainly not," said I. Drs. Post and Jenks met on the train and came to the house together. Dr. Jenks says that he subsequently learned that the fact of his intended presence had been carefully kept from the knowledge of both the family of the woman and the local profession. Though the matter was of no special importance, I did mention it at the first opportunity I had, and also the fact that "*my large Weir's atomizer*" belonged to Dr. Jenks. On his arrival, however, he was not slow to investigate its running, and to call attention to the fact that the "machine" was his, and we were not allowed to forget the fact, for before leaving the house he in one way or another, called attention to the fact four different times. (Price of steamer $11.25.) Dr. Jenks did not see the patient till everything was ready for the operation, nor until I assisted the patient to the operating table. The husband of the patient informs me, that after the patient was placed on the table, Dr. Jenks called him one side and asked him if he was aware that his wife might not survive the operation? The husband told him that I had so informed him. Dr. Wright informs me that Dr. Jenks then called him one side and asked him if the family were aware that the patient might die on the table? I submit that it was not Dr. Jenks' business nor duty, but my own, to advise the friends of my patient of the dangers of the operation. I did not *ask* Dr. Jenks or any one else to "confirm" my diagnosis. Dr. Post administered the ether, after which I marked with an "indelible" pencil the site for the abdominal incision, and remembering Dr. Jenks' request to let him make the first incision, I handed him the knife and asked him to make it. He cut near to the linea alba and said he could not find it. I then took a probe and felt for, found it, and slightly opening the peritonæum, passed a grooved director, and together we opened it to the full extent of the external incision. We both explored the tumor. Through a large rupture in the cyst the doctor "prodded" round, as I suppose, to find another cyst, which, by exploration with my hand, I found did not exist. The doctor says: "After the tumor had been sufficiently reduced to permit its extraction, I applied Storer's shield at the junction of the pedicle and the cyst." Now, if it will be of any consolation to him, I will admit that the shield should be included in any inventory that might be made of the instruments he brought, but I do most emphatically deny that it was used, or that there was any occasion for its use.

I first grasped the pedicle with my right hand, and lifted with my left the remaining portion of the tumor through the incision. As it emerged from the abdomen it tended to draw forcibly the pedicle, and its weight made it difficult to hold. At this juncture I politely requested (but did not "instruct") Dr. Jenks to remove a portion of the tumor I was holding in my left hand, in order to diminish its weight, while we should secure the pedicle. This he did. Then, without any "instruction," though by a polite request from me, he handed me a pair of compressing forceps. They having concave jaws, would not compress the pedicle, so I requested him to hand me forceps that would tightly compress it. He then handed me a pair whose blades were less concave, but were still too much so to produce the necessary pressure. Dr. Jenks then applied a pair of straight jawed forceps, but as they were adjusted to one side of the pedicle, I politely requested him to apply a pair of forceps to the other side. Accordingly he applied a pair which included a portion of the pedicle already compressed, but not reaching to the opposite edge of the pedicle; so I requested him to adjust a pair to include that portion not compressed by the first two which he did. The jaws of the compressing forceps first adjusted were long enough to have completely compressed the pedicle had it been well adjusted, which, owing to hurry, poor eyesight, *or some other cause*, he failed to do. After the three large forceps were adjusted I had my hands full to manage them and the pedicle, especially as I had to look after another large pair of compressing forceps, which Dr. Jenks, without "instruction," or even polite request from me, attached, early in the operation, to the walls of the abdomen, from which it was dangling. It was applied to a capillary vessel, which did not even emit a jet of blood when cut. It was done before I could get to it with artery forceps to twist it. These forceps caused a large slough, and endangered the life of the patient, and would have proven fatal only for the fortunate circumstance that the peritonæum healed by first intention. With all these instruments in place Dr. Jenks handed me Storer's clamp shield, and "instructed" me to adjust it, but I politely informed him I hadn't room, and handed them back, and they were not applied. These instruments were all the doctor's, and were selected from a nice variety of others, the most of which, by the way, looked very bright and new.

The doctor says that the tumor was multilocular instead of unilocular. I do not know how he ascertained that to be true except that "*ovariotomists of experience* would expect it to be from its size, and after having discovered the peculiar consistency of its contents," notwithstanding his remark, after we were well along with the operation, that he feared the tumor was malignant! Had the "experienced ovariotomist" then discovered more than one cyst?

Dr. Jenks says: "After severing the stump, I cauterized the end thereof with my Paquelin's thermo-cautery." I never before witnessed such an ostentatious display of instruments I submit that it was not essential to mention how the metal was heated except to give notice that Dr Jenks has a Paquelins thermo-cautery I had at hand every instrument and dressing required I had disinfected my sponges and boiled my silk thread after arriving at the house in the morning The doctor brought a large number of instruments, at his own instance, but not by my request He seemed desirous of having them used in the operation He was the most "forward" assistant I ever saw at an operating table Though his officiousness was distasteful to me as it was, I think, to all present, and though his vanity blinded him to the rights and merits of others, I thought, as he was my guest, there was no harm in humoring his conceit by letting him "swash," not thinking he was attempting as "flat a burglary as ever was committed," and if I permitted him to do more than assistants usually do it was through politeness and courtesy on my part The disinfected gauze, mackintosh and wire used were my own, as were part of the instruments employed

The doctor in referring to the removal of a portion of the tumor which had escaped into the abdomen, undertakes in a most presumptuous way to "damn me with faint praise," and says that I rendered him valuable assistance in the dexterous manipulation of the sponge, that he is under obligations to me, etc Others are under still greater obligations to me for the same, for at least two pounds of the material was removed after Dr Jenks proposed to close the wound, which he says he closed by means of silver wire Now that was done by myself as much as by him, as we assisted each other in that, as in about all other parts of the operation, except when the patient bled terrifically from the cite of an adhesion when the doctor stepped back from the table and exclaimed "Doctor she is bleeding to death," repeated the exclamation and added "if you can do anything for her, do it" To this I made no response but soon had the hæmorrhage under control

Now at this juncture, had the patient died, would Dr Jenks or any one else have claimed that *he* was the principal in the case? I would not have done so, certainly He speaks of the patient's recovery being due to my carrying out his instructions! "What strong meat does this our Cæsar feed upon," that he, in his conceited pride and pedantic ignorance, lavishes upon me his "instructions" which were as gratuitous as they were presumptuous, and which were not heeded by me in the least

I assumed the responsibility of, and met every emergency in the case, notwithstanding Dr Jenks' effort to "grasp the skirts of happy (?) chance" to add to his waning laurels as a specialist

True it was something to have come from Detroit, but Dr Jenks' experience and observation should have taught him, ere this, that "promotion cometh not from the east nor from the west" I think I am safe in saying that I have done as much difficult and successful surgery as has Dr Jenks I never engaged him or any one else to operate for me I have been assisted, however, by men, who, in my estimation, were more able, but who never arrogated to themselves the credit of operating for me, even though they may have made, in the modesty of true science, a polite suggestion, nor do I think they have felt their dignity so weak, as to be impaired by acting as such assistants

The first I was made aware that Dr Jenks claimed the case was conveyed to me in the following letter

GRAND LEDGE, Nov 1, 1884

DR GEO E RANNEY

Dear Sir —Dr Messenger, of this place, has just shown me a report of my mother's case, published in the "*Medical Age*," of Detroit, which was sent him by Dr Jenks, of Detroit The report says that Dr Jenks made the operation, and mentions your name, among others, as one of the assistants What does that mean? We certainly did not employ Dr Jenks to make the operation, and the report seems unjust to you, and certainly contrary to the facts as I observed and understood them

Yours truly,
JAMES E TAYLOR

GRAND LEDGE, MICH, Nov 1, 1884

GEO E RANNEY, M D, Lansing Mich

I observed a statement in the Detroit *Medical Age*, that Dr Jenks, of Detroit, removed an ovarian tumor from Mrs Edwin Taylor, of Grand Ledge, on the 8th of Oct, which statement was indeed a surprise to me As I had treated her for some time previous, and even up to the time the operation was performed, and being informed by Mr Taylor that he had employed you to perform the operation, and knowing nothing of Dr Jenks, or that he intended to be present, I certainly considered her your patient, and undoubtedly the other physicians who assisted considered it likewise I being present at the operation, do not see wherein Dr Jenks could possibly claim the honor of performing said operation, and I write you for information

Respectfully yours,
A J WRIGHT, M D

Dr Davis heard that the operation was credited to Dr Jenks, and left word with the husband of the patient that he would like me to call on him some day when convenient I accordingly did so, when he expressed surprise that Dr Jenks should have claimed to have made the operation I then asked him to express the same in writing He was then in haste to answer an urgent professional call, and said he would write it as soon as he got home and send it by mail He accordingly sent me the following letter

GRAND LEDGE, Nov 12, 1884

DR RANNEY

Dear Sir —I was present and assisted you in a case of ovariotomy on Mrs Taylor, of Grand Ledge I understand the case has been credited to Dr Jenks, but I cannot imagine for what reason From the first I regarded you as the responsible one and principal in the case

Yours truly,
W A DAVIS

The above are statements made "in the interest of truth and honesty," by all present at the operation save one, whose verbal statement, with his permission, I would be glad to quote

GEO E RANNEY

LANSING, Jan 12, 1885

THE LIBRARY CATALOGUE AND INDEX Published by Shepherd & Johnson, Chicago

This is a very neatly prepared book, with spaces for 1,500 titles The first part of the work is ruled as a catalogue, with spaces for titles, authors' names, number of volumes, size, binding, publishers, place and date of publication, cost, position in library, and remarks The second part is arranged for an alphabetical index

When a library is thus catalogued and indexed, the owner has not only an index but a complete inventory of his books

MISCELLANEOUS

American Medical Association, Railroad Notice —The Illinois Central R R will run an excursion train of Pullman Palace cars from Chicago through to New Orleans without change for members and other physicians and their families who attend the coming meeting of the American Medical Association, leaving Chicago on Saturday evening at 9 o'clock of April 25, and arriving at the Crescent City on Monday morning at 9 o'clock the 27th The rates from Sioux City, Dubuque, Galena, Amboy, Chicago, St Louis, Bloomington, Centralia, DuQuoin, Cairo, and other points along this line, will be as low as can consistently be made It is safe to predict that this will not exceed one cent per mile each way or, to illustrate, $20 for the round trip from Chicago

Official List of Changes in the Stations and Duties of the Officers Serving In the Medical Department of the United States Army, from January 17, 1885 to January 23, 1885

Tremaine, W S, Major and Surgeon, granted leave of absence for one year, on surgeon's certificate of disability (S O 14 A G O, Jan 17, 1885)

Maus, Louis M, Captain and Assistant Surgeon, granted leave of absence for two months, on surgeon's certificate of disability, with permission to leave the Division of the Missouri (S O 16, A G O, Jan 20, 1885)

Stephenson, Wm, First Lieutenant and Assistant Surgeon, relieved from duty at Ft Omaha, Neb, and ordered to Ft Niobrara, Neb, for duty (S O 6, Dept of Platte, Jan 19, 1885)

Official List of Appointments, Promotions and Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, October 1, 1884, to December 31, 1884

Bailhache, P H, Surgeon, granted leave of absence for thirty days, Oct 9, 1884 To proceed to Wilmington, N C, as Inspector, Nov 10, 1884 Relieved from duty as chief of Purveying Division, to proceed to Philadelphia, Pa, and assume charge of the Service Dec 10, 1884

Wyman, Walter, Surgeon, granted leave of absence for fifteen days, Oct 15, 1884 Leave of absence for fifteen days in December, 1884, and thirty days in January, 1885, also for a further period from Jan 31, 1885, without pay, and with permission to visit Europe, Dec 8, 1884

Purviance, George, Surgeon, when relieved to proceed to Cincinnati, Ohio, and assume charge Nov 12, 1884, to Louisville, Ky, as Inspector, Nov 24 1884

Austin, H W, Surgeon, to proceed to Boston, Mass, and assume charge Nov 12, 1884

Smith, Henry, Surgeon, when relieved to proceed to Cairo, Ill, and assume charge Nov 9, 1884 Granted leave of absence until Jan 15, 1885, Dec 17, 1884

Stoner, G W, Passed Assistant Surgeon, relieved from duty at Delaware, Breakwater Quarantine, to proceed to Cairo, Ill, in accordance with former orders, Oct 14, 1884, to Norfolk, Va, Nov 19, 1884

Irwin, Fairfax, Passed Assistant Surgeon, to close Cape Charles Quarantine, Oct 31, 1884, proceed to Washington, and report to Surgeon General, Oct 14, 1884, to take charge of the Service port of Georgetown, D C, and detailed as Acting Chief Clerk, Surgeon General's office, Oct 30, 1884, to Philadelphia, Pa, and Baltimore, Md, as Inspector, Dec 30, 1884

Mead, F W, Passed Assistant Surgeon, when relieved to proceed to Baltimore, Md, and assume temporary charge Dec 10, 1884

Heath, W H, Passed Assistant Surgeon, granted leave of absence for thirty days, on account of sickness, Oct 24, 1884. When relieved, to proceed to Pittsburgh, Pa, and assume charge Dec 26, 1884

Guitéras, John, Passed Assistant Surgeon, to report to Surgeon General, Nov 8, 1884 Leave of absence extended fifteen days without pay, Nov 14, 1884

Wheeler, W A, Passed Assistant Surgeon, relieved at Chicago, Ill, to proceed to Buffalo, N Y, and assume charge, Dec 26, 1884

Banks, C E, Passed Assistant Surgeon, when relieved, detailed for special duty, upon completion of same, to Boston, Mass, for duty, Oct 28, 1884

Peckham, C T, Passed Assistant Surgeon, granted leave of absence for twenty days, Dec 26, 1884

Bennet, P H, Assistant Surgeon, when relieved to rejoin his station (Detroit) Nov 20, 1884

Ames, R P M, Assistant Surgeon, to report to Surgeon Hutton, at Louisville, Ky, for examination for promotion, Nov 13, 1884

Devan, S C, Assistant Surgeon, to proceed to Tacoma, W T, as Inspector, Oct 14, 1884

Kalloch, P C, Assistant Surgeon, granted leave of absence for thirty days, Nov 19, 1884

Glennan, A H, Assistant Surgeon, to proceed to Key West, Fla, for temporary duty Oct 8, 1884

Battle, K P, Assistant Surgeon, granted leave of absence for thirty days on account of physical disability, Dec 6, 1884

Brooks, S D, Assistant Surgeon, to proceed to New York, N Y, for temporary duty Oct 20 and Nov 26, 1884

White, J H, Assistant Surgeon, to proceed to New Orleans, La, for temporary duty, Oct 3, 1884 To escort insane seamen to Government Hospital for the Insane, Dec 17, 1884 Granted leave of absence for fifteen days Dec 23, 1884

RESIGNATION

Smith, Henry, Surgeon, resignation accepted by the Secretary of the Treasury, to take effect Jan 15, 1885 Dec 17 1884

APPOINTMENT

White, Joseph H, M D, of Georgia, having passed the examination required by the Regulations, was appointed an Assistant Surgeon by the Secretary of the Treasury, Oct 2, 1884

PROMOTIONS

Peckham, C T, Passed Assistant Surgeon, promoted and appointed Passed Assistant Surgeon by the Secretary of the Treasury from Dec 1 1884 Nov 28, 1884

Ames R P M, Passed Assistant Surgeon, promoted and appointed Passed Assistant Surgeon by the Secretary of the Treasury from Dec 1, 1884 Nov 28, 1884

Devan, S C, Passed Assistant Surgeon, promoted and appointed Passed Assistant Surgeon, by the Secretary of the Treasury, from Dec 1, 1884 Dec 5, 1884

Urquhart, F M, Passed Assistant Surgeon, promoted and appointed Passed Assistant Surgeon by the Secretary of the Treasury, from Dec 1, 1884 Dec 5, 1884

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

VOL. IV CHICAGO, FEBRUARY 7, 1885 No 6

ORIGINAL ARTICLES

THE WORTHLESSNESS OF INHALERS AND INSUFFLATORS IN THE TREATMENT OF CHRONIC NASAL CATARRH

BY THOS F RUMBOLD, M D , OF ST LOUIS, MO

Almost every work that has been published within the last five years on diseases of the nasal passages and throat contains full directions for using these methods Inasmuch as I know, from experience, that both of them are not only worthless but injurious, I will analyze the subject sufficiently to demonstrate their inefficiency, and show that they must do harm in every instance, even if the agents used are the very best that could be selected, proving conclusively that the failure to benefit the patient is due wholly to the fact that the methods themselves are defective I will go farther, I will give my experience to prove that the agents usually employed are deceptive, and are always injurious

In the early part of 1868 I saw, in Cohen's work on inhalations (1867), a lucid description of Lewin's (Berlin) method of making and applying nascent muriate of ammonia This method of applying this salt to the diseased mucous membrane appeared so scientific, and was so highly recommended, that I got an elaborate apparatus prepared, and employed it for nearly one year on a large number of patients, consequently my knowledge of its effects is not merely theoretical but experimental

As this method is again being revived, I will quote Cohen's description of Lewin's apparatus, to show that what I used in 1868 and what is now being used are one and the same

"This apparatus [fully illustrated on page 251] consists of a series of three Wolfe's bottles One of these contains liq ammoniæ caustici, another pure muriatic acid, and the third bottle, which is filled with water, receives a tube from each of the other bottles, these tubes reaching to the bottom of the water, while from a third opening in the cork the vapor extrudes through an exit tube, to which a mouthpiece is attached by India rubber tubing Now, as the effort of inspiration draws the liquids [vapors] from the first two bottles into the third bottle, their ingredients combine to form the sal ammoniac vapor, which, during its passage through the water, becomes cleansed of impurities If it is desired to medicate the nascent sal ammoniac with creosote, or an oleo-balsamic mixture, or bitter almond water, etc , all that will be necessary will be to add it to the water in the third bottle "

I followed these directions to the letter In the third bottle—that is, the one from which the patient inhaled the nascent muriate of ammonia—I put the "oleo-balsamic mixture, bitter almond water, etc " The "etc " consisted of almost everything that would evaporate and not do harm, but the three agents from which I received the most benefit, or rather that made the patients think they were receiving the most benefit, were carbolic acid, cubebs, and sassafras bark, named in the order in which they gave the most satisfaction

I found in a month or two that the patients were under the influence of a continuous cold in the head, a symptom that many of them had not before experienced I then gave the inhalations but once a week, and in the interim I applied, by means of such spray producers as would treat the pharyngo nasal and nasal cavities, about one half dram of the following mixture Saturated solution of muriate of ammonia, tincture of iodine, tincture of aconite leaves, of each ʒj, and water ℥viij Gradually I lengthened the interval of the inhalations, until I stopped them altogether at the end of the year 1868

The first few times that these inhalations were used the patients were greatly pleased with them, but the pleasant effects soon faded into unpleasant effects, which, with the increase of symptoms of acute inflammation, proved to me that the method was an injurious one

The Kirkwood and Crosby inhalers, and the one now popular in London (I have forgotten the name of the claimant of this one) and recommended by an ear surgeon of that city of some note, are apparatuses for the formation of nascent muriate of ammonia, and are precisely alike in principle to the one used by Lewin, in 1862 The London apparatus is so constructed that one bottle is all that is required Through the cork of the bottle are passed two tubes One is made Y-shaped, the lower portion of which passes through the cork and to the bottom of the liquid in the bottle In one of the projecting arms of this Y-shaped tube is placed a small sponge, on which is poured muriatic acid, into the other arm another small sponge, on which is poured aqua ammonia The other tube that passes through the cork is used by the patient for inhaling the vapor from the bottle

Each one of the inventors (?) has placed in the fluid that is in his bottle some agent that is apparently intended to enhance the value of the muriate of ammonia, such as carbolic acid, cubebs, camphor, tincture of iodine, chloroform, and such like

The strength of the carbolic acid is always sufficient to produce an anæsthetic effect, anything short of this would not serve their purpose, which is to have their purchasers experience a relief of any pain that their catarrh might cause, but whenever this anæsthetic effect is produced, it *always increases* the existing congestion of the mucous membrane I am very certain that I am right in making this assertion Not only does the carbolic acid increase congestion, but if any irritating agent is also put into the inhaler, as the tincture of iodine, the patient is not warned of the injury done by it, as the pain is covered by the anæsthetic property of the acid In some of these apparatuses chloroform also forms a part of the liquid, this agent will certainly cover all irritation produced by the tincture of iodine That this latter agent is always injurious may easily be proved by the reader inhaling it alone, the immediate increase in the flow of mucus makes irritation apparent

Only those who have applied cubebs and camphor to their own nostrils know how liable both of these agents are to render the mucous membrane subject to colds Hot water baths are not more liable to induce colds than cubebs and camphor If they are to be used, I would advise the physician (especially if he has the least nasal catarrh — for they will not have a very bad effect on a healthy person), to use them on himself first

Insufflators are far more popular than inhalers I presume that the reason for this is that a powder from the former instrument remains much longer on the mucous membrane than a vapor, consequently they may think that applications by an insufflator will have a more permanent curative effect

All the agents named, except chloroform, the least objectionable one, are also used in the insufflator In fact, they are the principal agents, and upon them the authors of our latest works on diseases of the nasal passages depend for the cure of chronic inflammation

If these are taken away, their books would be stripped of remedies that give as much, if not more, promise than all other agents that they recommend

It is admitted that vapors from an inhaler, and powders from tubes called insufflators, can be made to pass through the nasal cavities, not only this, but they can be thrown upon every portion of the nasal surfaces But experience has proven time and again that they have not cured chronic catarrhal inflammation Why is it that these methods do not cure?

Some one may say, "If every portion of those irregular cavities is reached, the failure must be due to the fact that the wrong agents are employed" Unfortunately this is not a satisfactory explanation of the failure, because every article of the materia medica that could be used and would not produce positive injury, has been applied by one or both of these methods, and with the same general result — a complete failure

It seems to me that this indicates that the objects to be attained and the means of attaining them are not understood, or to use other words, that what is to be done to treat nasal catarrh successfully, and how to do it, are unknown A proper understanding of these two paramount subjects is, I think, the solution of the whole difficulty

I will endeavor to answer the question What should these two methods do to assist the healing tendency of nature to perform a cure?

Every one familiar with the appearance of a chronically inflamed mucous membrane, knows that it is usually coated with a thick tenacious secretion, and in the worst cases this muco-pus sometimes forms crusts Many years of experience has proven most conclusively that success in treatment will depend on the removal, by mild means, of this closely adhering coating, which, besides being a constant cause of irritation to the membrane covered by it, is a source of very much annoyance, and frequently of great pain, and it prevents the medicament from reaching the diseased surface, a most important matter, as every one will perceive after a moment's reflection

It is self-evident that the inhalation of a vapor, either cold or warm, or the insufflation of a powder, can have no cleansing effect on a surface that is even but slightly affected by catarrhal inflammation, and as to its cleansing surfaces covered by secretions, some of which adhere so tenaciously that they can scarcely be removed by a brush, cannot be thought of for a moment, yet this is just what is expected of them, what they should do and what they *must do*, if the case is to recover by the aid of this kind of treatment

I venture to say that it is now not difficult to understand why the inhalation and insufflation methods of treatment always fail

Besides this palpable oversight, there is another nearly as great, it is this In the immediate neighborhood of the inflamed parts, there is quite an extensive surface of healthy mucous membrane This normal membrane is constantly moistened with a VERY THIN coat of healthy mucus, which is watery in its consistency I have not emphasized the words "very thin," accidentally, but to indicate the extreme attenuation of mucus on a healthy mucous membrane Chemico-physiologists have been unable to ascertain the exact chemical composition of healthy mucus, for the simple reason that it was impossible to collect a sufficient quantity to analyze it, proving, conclusively, that the quantity on the healthy membrane is only sufficient to moisten it, not the least redundancy is to be found on its surface

A vapor from the inhaler or a powder from the insufflator instantly affects the healthy mucous membrane through this attenuated coating of healthy mucus, but I deny that we have any evidence that even a pungent vapor, or a sharp powder will as quickly pass through so much as a thin coating of secretion that flows from a catarrhal surface, and as to a powder passing through a thick, viscid muco-pus (for a vapor cannot do it) I know, from observation, that hours and days are required The rain falls upon the just and the unjust, so, with like impartiality, does the vapor or powder light upon the healthy and unhealthy mucous membrane, but their effects upon these two different surfaces stand in marked contrast to each other

A vapor or a powder can produce no effect in the nasal cavities unless it reaches the mucous membrane by being first formed into a solution by the mucus that is on the surface to be treated Surfaces covered by crusts are of course not affected in the least by either agent, yet this very surface is more in need of treatment than any other If a membrane, covered by a semi-fluid, tenacious muco-pus is to be treated, it can only be done by the vapor or powder being formed into a solution by this thick secretion It is safe for me to say that no vapor, however pungent, penetrates this muco pus, and it is also safe to say that a powder may remain on it for several days without affecting the membrane covered by it Can it be said that this exemption from the effects of a vapor or powder is extended to the healthy mucous membrane? No, indeed! The healthy mucus instantly forms a solution of both, so that the healthy membrane is as instantly injured by it I presume no one will say that a healthy mucous membrane may have a medicated vapor or powder applied to it repeatedly without injuring it

"But," says a friend of the inhaler and insufflator, "I have seen crusts as well as semi-fluid secretion removed by both of these methods How do you account for it?" In this way The vapor and the powder always acts as an irritant to the healthy mucous membrane, as has been said, and, in the instances where these accumulations were removed, the irritation must have been of such an aggravated character, as to be sufficient to excite an unusual flow of mucus from the *whole* surface of the nasal cavity, that is, the mucus is caused to be poured out from that portion of the membrane that is covered by the crusts and semi fluid secretion, as well as from the healthy uncovered membrane, and this unusual, forced outflow of mucus washes away a part of the adhering muco-purulent collection That I am right in this, is proved by the fact that these solid and semi-solid accumulations come away long before a powder could have passed through them to have such an effect on the membrane to which they adhered This is evident Again a vapor, an agent that no one will say can pass through these secretions, will in precisely the same way and in the same time remove these accumulations

There are two important questions to be asked

1st Has a diseased surface, that has been treated by the inhaler or insufflator, been benefited or irritated by these methods?

A surface thus covered could derive no benefit from a vapor passing over it, the duration of the passage being too short, even a powder would not remain there long enough to become a solution of sufficient strength to excite a flow of mucus to wash off the coating, because the portion of the powder that fell on the healthy mucous membrane would cause enough irritation to wash everything out of the cavity Consequently the answer must be that the diseased surface was irritated only, not by the medicament applied to it, for that could not reach it, but that applied to the healthy mucous membrane in its immediate neighborhood

2d Has the healthy mucous membrane been benefited or irritated?

I should like to know which horn of the dilemma the advocates of inhalations and insufflations would take? For either will injure their cause They do not wish to be understood as making applications to a healthy surface for the purpose of improving it They can only say that they unavoidably irritate the healthy surface, while irrigating the diseased membrane sufficiently strong to compel an unusual flow of mucus to wash away an offending secretion

"But," says one, "I deny that there is any healthy mucous membrane in a catarrhal nasal cavity" Will he, in this way, get rid of these two barriers (questions) to these methods? No, indeed! Even if his knowledge of the condition of a catarrhal nasal cavity is limited, which this denial would indicate, he must admit that there are portions of a catarrhal cavity that are far more inflamed than others, that is, there are portions that are not covered by semi-fluid and solid secretions This being the case, as all know, then let him answer the questions as to the treatment of the less, and the more inflamed parts, by a method that treats the covered portions by irritating the uncovered portions

It is seen that the surface that does not require treatment receives it, and that which does require treatment does not receive it Irritating a healthy membrane for the purpose of influencing a diseased membrane, cannot be called treatment of a diseased membrane These methods irritate the healthy surface to free the unhealthy surface of its diseased secretion, the injury done to the one is much greater than the benefit to the other, for a healthy membrane, will take on an inflamed condition very much faster than a diseased surface will resume its normal condition

Some one may suggest that if the catarrhal secretion be first removed, might not a vapor and powder have a beneficial effect?

No, of course not! I have already given my experience to prove that the vapors and powders mentioned in this paper (and they are the most popular), are harmful in whatever way they are applied

The consideration of vapors is dismissed by saying that they are too transient to be beneficial

It is impossible to apply a powder to a diseased surface alone, and the healthy surface will be injured by a medicated powder Even the mildest kind of a powder will cause irritation of a healthy membrane by drying its surface, which is not its normal condition, this condition being that of perpetual moisture In this case, also, the injury done to the healthy surface by the medicated powder is greater than the benefit to be derived from its application to the cleansed diseased surface

If a patient's nasal passages are cleansed first, and a powder applied next, the case will be over-treated Those who have had much to do with these cases, know how easy it is to over-treat them If the patient is made to wait long enough for the membrane to recover from the partial injury done by the cleansing process, as water cannot be applied to the nasal mucous membrane without injuring it to some extent, the surface will be again coated with secretion before the powder is applied, in which case the patient will not be properly treated

That physician is exceedingly fortunate who can do ANY THING to a patient's nasal passages, and leave them in an improved condition This remark will be appreciated by those who have had experience with these cases

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"MEDICAL JURISPRUDENCE IN DIVORCE"

BY CARL H VON KLEIN, A M ,M D , DAYTON, OHIO

An address delivered (by invitation) before the "Ohio State Bar Association, at their annual meeting Dec 30 and 31, 1884, Columbus O

MR PRESIDENT, GENTLEMEN OF THE OHIO STATE BAR ASSOCIATION

No branch of science seems to have been more neglected than that pertaining to Medical Jurisprudence in Divorce Will you, then, pardon my zeal upon this subject? I do not desire to bring to your attention, gentlemen of the bar, a subject with which you are unacquainted, nor is it my object to send this address to the forensic world as upon a new field of science But rather as an attempt to show what beneficial effects might result from a more thorough and scientific study of the subject My humble judgment leads me to believe that many cases of divorce are obtained improperly from the very fact, known to laymen, as well as to your own and my profession, that the point of Medical Jurisprudence is very seldom raised It may sound absurd, yet the fact can not be denied that two-thirds of the cases in divorce are obtained on the ground of willful absence Though it may remain unadmitted, nevertheless I will assert, that in almost every case where willful absence is the alleged ground of divorce, if the predisposing cause were carefully ascertained, it would disclose the fact, that impotence or some organic perplexity, either local or constitutional was the prime cause Yet have any of you ever heard of a court that inquired into the prime cause of a wife or husband's willful absence? Right here I would like to be informed of the truth of this matter, that it may enable me to place you aright before the eyes of the world It would afford me great satisfaction to know that many of you who are very eminent in your profession can vindicate yourselves honorably from the charges which I am now about to make, to wit a claim to superior wisdom and infallibility It is a common thing for a lawyer to claim to be the most learned man in the land, from the very fact that he ought to be The progressive scientific lawyer is demanded not only to be well posted in jurisprudence, but he must be no stranger to botany, chemistry, pharmacy, microscopy, physiology, anatomy, surgery, medicine, and its collaterals His application must be indefatigable, and his attention to the operations of nature equal with that of a physician—a philosopher in the true sense of the term It is not demanded of a physician to understand law, but it is emphatically required of the jurist to understand physic I will again pray you to pardon my rude charges against your chosen profession, but it is the truth! "A very little truth will sometimes enlighten a vast extent of science" You may truthfully state that it is impossible for one human mind to accomplish all the branches of science especially demanded by your profession, but there is no excuse for you to ignore our profession Since you cannot accomplish the entire science of your occupation without our aid, so essential to your assistance, you must, therefore, regard us a part of your profession In order to prove that a physician is ignored by intelligent courts of judicature, I will show the following cases

CASE 1 Mrs B, an intelligent lady, age 26, a handsome brunette, applied for divorce to the County Court of Cook Co, Ill, in 1872, on the plea of willful absence When the case was called, the defendant aimed to prove that it was a necessity for him to be parted from her, but he did not care to be divorced But the court ignored this, and a divorce was granted In 1874 she applied to a physician for treatment for some acute malady After he became well acquainted with his patient, he discovered by her admission that she was once married, and loved her husband, but she had lost her sexual desire, and venereal intercourse had become almost as a death warrant She did not even care about being restored, but after expostulating with her for some time, she consented to treatment She was entirely restored in the course of nine months, when she again renewed her marriage with her former husband

CASE 2 Mrs L, age 22, applied to the County Court of Wayne County, Michigan, for a divorce on the same ground as in the former case She related a peculiar history She stated in her petition, after the second night of her marriage her husband left her bed in the middle of the night and had not returned for three years or longer, for a cause that she did not know But she admitted in court that the fault was her own which caused him to leave her She testified that she had a boil in the vaginal cavity, and that she could have no connection with him, and for refusing indulgence to his venereal pleasures, he left her But she loved him and would do so to day, and he would live with her, provided she could perform sexuality Nevertheless a divorce was granted A friend advised her to consult a physician, which was done, and she permitted an operation which restored her to her normal condition by removing three large polypi, each one weighing almost an ounce and a half She also remarried

CASE 3 Mrs D, age 31, married nine years, applied for divorce in New York County Court, on the usual ground of willful absence She claimed that her husband did not like her, and during all the period of their marriage there was no sexual intercourse between them, she claimed that she liked him and would live with him, if she could raise a family The defendant also admitted there was no such intercourse between them, that he would live with her if he was able to accomplish the same Here the greatest circumspection of medical jurisprudence should have been demanded, but neither the jurist nor the judge of such an enlightened court as New York, demanded or ascertained the incapacity of the unfortunate man, and a divorce was granted. In accordance with the plea of the plaintiff, in a short time after, he consulted a physician who found him to be afflicted with capistration, he was immediately relieved by a surgical operation. He went to see his former wife and they were remarried six months after the divorce, and are now living together happily with a family of two or three children.

There are thousands of cases of the same nature that are neglected by the ignorance of the faculty, the caprice of the court, or by the artifices of either or both. From the foregoing and the continuation it can and will be seen, that medical jurisprudence is necessary in almost every case of divorce, but no books in the world will ever make an expert to facilitate the learning of it. It should excite the most strenuous endeavor of those whose business it is to instruct others in the medical science, the utility of which has been confirmed by a long, extensive, and painful experience. Such as they are, mankind are welcome to them, for medical men have no other object in view but human benefit. He who can conceal that which would be advantageous to thousands for the emolument of a paltry individual, is a despicable wretch that deserves very ill of society.

> "Si quid novisti rectius istis,
> Candidus imperti, si non his utere mecum."
> *Horat.*

There[1] are many disorders which are generally allowed to constitute the natural grounds for a divorce between two married persons, though particular laws are generally founded on local causes, and probably do not refer to their natural reasons, yet no others concern the medical portion. There are many disorders, by whatever name they may be called, all defects of the human constitution, which appear to constitute the natural reason for a divorce, generally those which are absolute impediments to procreation, these may be considered in accordance with the subject of generation, and may be classed technically under two heads, *impotence* in men and *sterility* in women, which is either positive or perpetual, or such as defies human art to remove. We consider absolute impotence in men when they are eunuchs, or are deprived of both testicles, as these are the receptacles of semen; without them no generation can be performed; or spadones, such as have the nerve or muscle leading to the parts of generation bruised so as to deprive them of all perception of a venereal appetite; or when the penis is perforated in such a manner that the semen can not be emitted with sufficient force. This rule is to be admitted with some limitation, as the theory of generation is not sufficiently established. Even when the penis is too short, by being amputated for disease; or when the penis is too thick, these cases may be respectively considered; when both testicles have become scirrhus, so as to be incurable, or the vesicula seminales have become scirrhus; or the semen is too watery, and will not admit of alteration, nevertheless, it is not an absolute cause, as it admits of a cure; when they are afflicted with capistration, or the preputium is so formed or fastened to the glans penis that it cannot be relieved by a surgical operation. All disorders which are impediments to procreation of children, and which are not caused by the organs of generation; such as are of a highly contagious nature, or create an unconquerable aversion, as the lues veneræ, melancholy, epilepsy, scurvy, scrofula, and a highly fœtid and disagreeable breath. Absolute sterility in a woman, disqualifying her to perform sexuality, will arise when the parts ordained for the organs of generation are such that they do not admit of relief without great jeopardy of life; when the vagina is too straight and narrow; on account of scirrhus tumors, etc.; which may be impossible to remove; when the orifice in the uterus is entirely closed. This is not an absolute impediment, because it may be remedied by the hand of a surgeon.

When there is an ulcer in the uterus, which might have penetrated the rectum and bladder, even when oppressively afflicted with leucorrhœa or whites, great care and attention should be given before an absolute judgment is rendered, as this admits a cure; but if everything failed, the husband should also be examined carefully in regard to his own adequacy. There are many other causes of sterility, which are caused by obstructions or injuries in the organs of generation; but it is all darkness, and it would be inhuman to determine by any other method than by the inspection and careful examination of the parts by some scientific and honorable physician. There are, besides these, many other circumstances that may not render either sex absolutely impotent, yet may be considered defective. There are certain obstructions to the generative organs that in no way constitute reason for divorce. Ignoramuses may consider them as such, but the progressive physician will guard against such an error. The following occur in the male sex. Monorchides—such as have only one testicle. These are by no means incapacitated, as this secretion is only made in that organ, from which it is carried to the vesiculæ seminales, and there deposited for use, so that one testicle is as effectual as two; the secretion is always proportionate to the evacuation. Triorchides — those who have *three* testicles; spadones, where one testicle is injured. Chrysporchides are those whose testicles do not lie in the scrotum, but in the abdomen or in the groin; those who have præputium buttoned on the glans; those who labor under phymosis, or paraphymosis, a disorder where the præputium is brought over the glans penus or contraction of the prepuce behind the *corona* in such a way as to prevent its return over the glans, and cannot be retracted but by art; those whose penis is shorter or longer than natural, unless extremely so; those who are circumcised. *This is* an advantage rather than an impediment. Hermaphrodites, or Androgyni. Those are unfortunate living beings, sometimes capable of all the functions of society. Yet their situation should arouse our pity, for they are not only deprived of common pleasures of mankind, but are subject to disorders, painful, uncomfortable, incommodious, constantly having desire when in society of either sex. A perfect hermaphrodite has distinguished marks of both sexes, with a power of enjoyment with each. An imperfect hermaphrodite may be classed according to the sex, into what are called Androgynus and Androgyna.

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[1] According to Johanus Fredericus Faselii in his work entitled "Elementa Medicinæ Forensis." Geneva, 1702.

The former is the male, who has his own organs tolerably perfect, but has some division in the flesh above and below, or in the scrotum, which makes an appearance of the female pudendum. The penis may also be obliterated so as to give no exterior appearance of the male, but the general constitution of the body, whiskers, etc., confirm him to be of that sex.

The Androgyna is a woman who has the parts of generation nearly like another but, at the same time, the clitoris grows so large that it has the form of the male penis. This may be a very inconvenient disorder, as she is sometimes deprived of pleasures peculiar to her sex and suffers much from the disorders of the parts. From her mammary glands and imperfection of beard, however, she is distinguished from the male. As a rule such women are subject to robust and masculine constitutions. It is evident that those sexes are as completely marked as in other persons, and to all legal intents and purposes, they are men and women. Women are claimed to be incapacitated entirely, as the various disorders of anteversion and retroversion, anteflexion and retroflexion of the uterus may be only temporary, and may be remedied by art, when they have too large a clitoris or nymphæ, or when they are androgynæ or hermaphrodites, from various causes, where the pudendum is too large and wide, when they are irregular menstruants, or have received a rupture of the perineum, or the part between the fundament and pudendum, etc. I will not enter into further detail, as there are many other points which might be raised in jurisprudence, but, in conclusion to my foregoing, I shall narrate to you, as well as to my professional brethren, the improvements of this science. I am sure they can have no objection to my course. The love of truth is of equal importance in the reception of facts and in the formation of opinions, and it includes, also, a readiness to relinquish our own opinions when new facts or arguments are presented to us which are calculated to overthrow them. Let us inform ourselves with all the modern education of the present day. Lord Bacon says: "Knowledge is more beautiful than any apparel of words which can be put upon it." Let us investigate that which we have neglected, and acknowledge the errors, which we lamentably regret, and unite our attainments of science [illegible]ver language we may use. In natural scien[illegible] but one language universally intelligible [illegible] language of facts belongs to nature here, there[illegible] I trust that the forbearance of the past will be gr[illegible]vitated by the future, and we can rest assured that the most excellent and refined felicity springs from the disinterested and varied endeavors to lessen the evils of life and add to the enjoyment of our fellow-citizens.

TREATMENT OF DIPHTHERIA

BY JOHN M. BATTEN, M.D., PITTSBURGH, PA.

During the last few years my recoveries of cases of diphtheria that I have treated have been 80 per cent. The remedies I have usually prescribed were chlorate of potash and tincture of the chloride of iron internally, with liberal sustaining diet and large doses of whisky at stated intervals. The local treatment consisted of gargling, penciling, or spraying the throat with a saturated solution of chlorate of potash, but latterly I have used lime water instead of the solution of chlorate of potash, and found it quite a beneficial local remedy.

The physician, in order to be successful in the treatment of diphtheria, should see the patient at the commencement of the disease. The patient should be put immediately to bed in a large and well ventilated room, on the second or third floor. The temperature of the apartment should be about 65° F., the air of which should be kept moist by means of boiling water in a tea-kettle or other vessel, or by placing unslaked lime in a bucket over which boiling water may be poured. The patient should remain in bed till all danger of the sequelæ of the disease are past. All secretions of the mouth and throat should be expectorated or washed out, and the throat and mouth should be rinsed or sprayed frequently, either with cold water, a solution of chlorate of potash, or with lime water. If the mouth and throat are parched, small pieces of ice may be allowed to dissolve in the mouth; strong caustic solutions of any kind should not be used. All the local applications should be of a soothing, solvent, or antiseptic character.

If the exudation extends along the nasal tracts, they should be washed out with lime water or a solution of chlorate of potash by means of a nasal douche. When the exudation has disappeared from the throat, tincture of the chloride of iron in full doses may be administered three times a day, and sweet cider taken *ad libitum*. The latter remedies I think counteract any tendency to congestion of the kidneys and consequently albuminuria. If, by reason of swelling of the throat, paralysis of the muscles of the pharynx, or irritable stomach, the patient becomes unable to swallow, suitable remedies should be directed per rectum.

When the throat is much swollen, bags of ice may be applied to it, or, if more agreeable to the patient, hot fomenting poultices may be used instead of the ice. The diphtheritic membrane should be allowed to come away without forcibly dragging at it.

The temperature usually the first few days of the disease rises to 102° F., then it declines to normal or below it, when it may again rise above normal. It is when the temperature declines below normal that stimulants act so beneficially, and if not given at any other period of the disease they should be given then, but, as I have stated before, I give whiskey throughout the disease.

The so-called specific remedies are mercury, sulphide of potassium, bromine, and the balsam of copaiba and cubebs I have had no experience with any of the above named remedies except mercury, and would not administer it only in a case of laryngo-tracheal diphtheria or the so-called pseudo membranous croup In a malignant case of pharyngeal diphtheria I certainly would not administer mercury, because I believe other remedies would give better results

The general antiseptic remedies are the tincture of the chloride of iron, chlorate of potash, carbolic acid, and salicylic acid with its compounds The value of iron and chlorate of potash I have already referred to Dr Mackenzie states that sulpho-carbolates as referred to by Sansom have proved beneficial in his hands only in secondary poisoning of diphtheria Five grains of the sulpho-carbolate of soda in water may be given to a child of two years every three or four hours Salicylic acid has been used by Fontheim, who highly recommends it Salicylate of soda and potash have been found of doubtful efficacy in the treatment of diphtheria

Of the local solvents, Steiner recommends particularly lime water Sanne has recently suggested saccharate of lime The solvents can be applied to the membrane by means of a spray apparatus or camel's hair pencil Mackenzie states that lactic acid is a most reliable solvent, and that he applies it freely with a brush

As local antiseptics, carbolic acid, permanganate of potash, chloronated soda, glycerine of borax, and hydrated chloral suitably diluted have been recommended The antiseptics may be gargled or used by a spray apparatus Varnishes act as antiseptics by excluding the air from the false membrane, and have been recommended and used by Dr Mackenzie They consist of gum benzoin, gum tolu, mastich and resin, either of which may be dissolved in rectified spirits of ether He prefers ethereal solutions (1 to 5) and tolu as most pleasant, and lasts longest as a varnish It is applied by a brush after the false membrane has been dried by blotting paper

Until recently I believed that laryngo tracheal diphtheria, and the so-called pseudo membranous croup, were two separate and distinct diseases I think now they are one and the same disease To substantiate me in my opinion as to the unity of the so called pseudo-membranous croup and diphtheritic croup, I refer you to an article written by Alex Harris, M D, page 330, Vol 1, No 11, JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION I have observed the so called pseudo-membranous croup treated with emetics, and have witnessed the patient vomiting from the effect of these drugs, and never have I known a patient recover by this mode of treatment Of course, if we have reason to believe the membrane in the larynx or trachea is loose, then a brisk emetic may remove the exudation, otherwise it will do harm

In a few cases I have prescribed one grain of calomel every two hours, and my patients so treated recovered Twelve years ago my attention was directed to the beneficial effect of this remedy in this disease I was attending professionally a boy, five years old, suffering from so-called pseudo-membranous croup I prescribed the regular routine of expectorants and emetics, and my patient grew worse, till I thought it a proper case for surgical treatment An experienced and skilled surgeon was called to see the case with me, who gave it as his opinion that the case was a proper one for tracheotomy It being late in the evening, and the parents of the patient not having consented to have the operation performed, we determined to postpone the operation till the following morning A grain each of calomel and pulverized ipecac was directed to be given every two hours, and the inhalation of steam from lime The following morning, I was notified my services were no longer required The family, a short time after my dismissal from the case, called in an irregular, but the calomel powders, in the meantime, were administered according to directions Shortly after the irregular saw the boy and had administered a few sugar pellets, the membrane was expectorated and the child recovered The calomel did its work, and the irregular got the credit of curing the disease

Recently I attended a boy, six years old, suffering from diphtheritic croup I administered calomel in grain doses, every two hours, with inhalation of steam from lime The patient recovered *Dr Wm Pepper* has lately reported a like success in the treatment of a case of laryngo-tracheal diptheria with mercury

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A CASE OF VICARIOUS CATAMENIAL HÆMORRHAGE FROM THE GUMS, WITH RECESSION OF THE GINGEVAL MARGINS AND ALVEOLAR PROCESSES, THE RESULT OF AMENORRHŒA

BY W W ALLPORT, M D, CHICAGO, ILL

[Read to the Section of Oral and Dental Surgery of the American Medical Association, May, 1884]

MISS K W, aged 25 years, of tall, slender form and nervous temperament, has been under my professional care for the past twelve years As a girl she enjoyed average good health, several years ago noticed a tumid condition of the margins of the gums, which were also detached from the necks of the teeth, and slightly receded, accompanied with a tendency to hæmorrhage on mastication, or when using the tooth-brush

Upon a careful examination, could find no deposits of salivary calculus about the necks or roots of the teeth, nor could I discover any discharge of pus Pressure, however, upon the congested portions of the gums, caused slight hæmorrhage The case was treated at that time by free scarification of the gingeval margins, and astringent washes The young lady has been seen at frequent intervals during the intervening years, and the same treatment substantially adopted, but with only temporary benefit

I had noticed, however, that she was gradually losing her health, and rapidly falling into a nervous, moody condition, and suspecting uterine trouble, therefore advised consultation with her family physician, but this advice had been neglected In October, 1883, was again consulted regarding the condition of her teeth and gums, found them in very much the same condition as already described But the recession had gradually progressed until the necks of the teeth were considerably exposed, and the teeth very slightly loose in their alveoli The general appearance of the patient was decidedly anæmic, and she complained of the hands and feet being habitually cold, pain and weakness in the lower lumbar region, easily fatigued, and that once in six or seven weeks her gums would bleed constantly for from two to three days—the amount small, but still enough to tint the saliva I found also, upon further questioning, that she was suffering—and had been for the past seven or eight years—from a uterine derangement, causing irregularity in the appearance of the catamenia

The history of the uterine difficulty is as follows Commenced menstruation at fourteen and a half years of age At first, menses were free, and unattended with pain, but habitually delayed from two to four weeks This condition continued for nearly five years, when, at the age of 20, a period of six months elapsed without any appearance of menstruation Since that time the menstrual periods have been rather more delayed than formerly, with gradually decreasing flow and more general disturbance As the period of menstruation would arrive, she would be troubled with the hæmorrhage from the gums, already mentioned (occasionally accompanied with nose-bleed), dull headache and increasing languor, these symptoms subsiding on the appearance of the menstrual flow The case was therefore referred to the family physician, Dr J S Hotchkiss, who found, upon examination, the following conditions Vagina quite small, uterus in a retroverted position, with the cervix anteflexed, was unable to pass the sound into the cavity of the uterus on account of the sharp flexion of the cervix

The treatment has resulted in correcting the uterine difficulty During this treatment the Faradic current was used about the pelvis, and the patient prescribed iron and cod-liver oil Improvement commenced after the first week of treatment, and continued steadily The first and second menstruations occurring after the treatment was begun were delayed till the sixth week, but were free, and unattended by any general disturbance At the third menstrual period there was a slight show at the fourth week, but it came more freely at its accustomed time, the beginning of the sixth week

When last seen, a few weeks ago, the patient's appearance gave indications that her health was in every way greatly improved

The hæmorrhage from the gums has not occurred since the reestablishment of the menstrual flow, the gums have their normal color and attachments (except that they had not regained their normal position at the necks of the teeth)

The mouth is now in a healthy condition, and this result has been accomplished with no other treatment than that adopted by her family physician for the amenorrhœa

DISCUSSIONS ON DR ALLPORT'S PAPER

Dr Marshall —I have recently had under treatment a case in some respects similar to the one reported by Dr Allport

The lady, Mrs H, 32 years of age, was married eight years ago, and after two years gave birth to a son, since which she has been afflicted with a displacement—anteversion—in all probability the result of subinvolution

At times this condition has so affected her general health as to confine her to the house for weeks and months at a time At every menstrual period she was obliged to keep her bed for from three days to a week, on account of severe suffering

Five years ago she first noticed an inflamed condition of the margins of the gums, and that they were *receding from the necks of the teeth* Her dentist was consulted, and he removed a small amount of salivary calculus from about the necks of the teeth, and said that was all he could do for her, as the cause was hereditary

In June of last year (1883), was consulted by the lady with regard to the condition of her mouth She said the recession of the gums had steadily progressed, and on examination I found the gums receded to the extent of about one-eighth of an inch from the necks of the teeth, and quite uniformly about all the teeth in both jaws I found but little salivary calculus in any part of the mouth, and what was discovered was upon the roots of the teeth, and completely covered by the gums The gums were congested at the margins, and loosened from the roots of the teeth to the varying depth of a sixteenth to a fourth of an inch

Pus was found under the gums in those locations where the tartar was present

The teeth were not loose, nor sensitive to percussion, and there was no hæmorrhage except when using the tooth-brush Upon further inquiry, I ascertained the fact of the uterine displacement, and the history of the case as above stated, and that she had lately commenced treatment for that affection

I was of the opinion that there was some association between the uterine trouble and the condition of her mouth, for I could not find a sufficient local explanation to account for the manifestations in the oral cavity I therefore removed the tartar (sanguinary calculus (?)), prescribed an astringent wash for the gums, and told her we would wait the results of the uterine treatment I have seen the patient several times since her physician began the treatment, and have noticed a steady improvement in her general health, she says—March, 1884—the uterine displacement has been entirely overcome, and that menstruation is now normal The oral conditions are much improved in every respect, the congestion of the gums has entirely disappeared, no pus is to be found about the necks of the teeth, and the margins of the gums are firmly attached, but still leaving the necks of the teeth exposed This case, like that of Dr Allport's, is interesting from the fact that the oral affection was but an expression of a disease located in a remote organ

Dr Williams —I have noticed the same conditions as those mentioned by Dr Allport and by Dr Marshall, and cases are not infrequent in which diseased conditions located in the reproductive organs find expression in the oral cavity One marked case, with inflammation of the gums and discharge of pus about the necks of the teeth, occurred in a young woman married just a year, and whose mouth was in a normal condition just previous to marriage It was evidently the result of excessive venery

Dr Stellwagen —I have seen two cases of vicarious catamenial hæmorrhage from the gums and alveolus occurring after the extraction of a tooth

One was a young lady troubled with a slight ulceration of the os uteri, treatment of the ulceration resulted in the cessation of the hæmorrhage

Dr Briggs moved that the discussion on the papers be now passed, and that Dr Allport be given an opportunity to present the models of a peculiar case of irregularity, and the methods adopted for its treatment

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS.

HYPODERMIC INJECTION OF AMYL FOLLOWED BY EPILEPTIFORM CONVULSIONS — Dr Sidney Ringer (*Journal of Mental Science, Practitioner*), has noticed the occasional action of the nitrite of amyl upon the heart, and the strange effect sometimes produced upon the nervous centres He says "I have seen one case where a woman immediately after a drop dose turned deadly pale, felt very giddy, and then became partially unconscious, remaining so for ten minutes" And again "A delicate woman, after one-thirtieth of a drop, passed in a few moments into a trance-like state" In a case described by Dr Strahan, a chronic maniac aged fifty-three had suffered for several days from severe lumbago, a ten-minim dose of a 10 per cent solution of nitrite of amyl in rectified spirit was injected hypodermically "Immediately after the injection the pain disappeared He got up from the bed, and at my request stooped and touched the floor with his fingers In, as nearly as could be guessed, about a minute and a half, he suddenly became deadly pale and sank back upon the bed" Then his face, head (bald), and neck became congested, and he was strongly convulsed for about half a minute The convulsion affected the face and arms strongly, the legs slightly The teeth were ground, and the breathing was suspended In a few minutes after coming out of this fit, he was attacked by a second one, during which the heart's action became very faint He was made to inhale some chloroform, and the fits did not return The lumbago entirely disappeared This observation is interesting, as inhalations of nitrite of amyl have been recommended to check the recurrence of epileptic convulsions

ANTIPYRIN IN CHILDREN'S DISEASES As the result of numerous trials of this new anti-febrile substance on children at the Erlangen polyclinic, Professor Penzoldt (*Berliner Klinische Wochenschrift, Practitioner*) arrives at the following conclusions

1 It is to be regarded as a very suitable means for diminishing the temperature in the febrile affections of children

2 In proper doses it effects a diminution by several degrees during several hours

3 The diminution of the pulse does not always correspond to that of the temperature

4 Its influence upon the general condition of the patient is usually favorable

5 Vomiting only sometimes attends its employment, but when this persists the antipyrin must be given in an enema

6 The proper dose to begin with is as many decigrammes as the child is years old, repeated three times, at intervals of one hour If this dose does not suffice for the production of a decided effect, then it must be increased decigramme by decigramme In an enema we may give at a single dose from three to six times as many decigrammes as the child has years

7 After long use of it the child's system sometimes gets accustomed to the remedy

SURGERY.

STRETCHING THE INTERCOSTAL NERVES —Dr L von Lesser, (*Deutsche Med Wochenschr, Practitioner*) of Leipzig, has recently reported a somewhat remarkable case of intercostal neuralgia and of mastodynia treated successfully by stretching of several intercostal nerves The patient, a woman, aged 61 years, and the mother of eight children, had suffered during seven years from a feeling of compression of the thorax, very severe paroxysms of darting pains along the intercostal spaces on both sides, but more intense on the right, and neuralgic attacks in the mammæ and nipples Through the intensity of these paroxysms, which came on usually at night, she was prevented from sleeping, and her sufferings were so severe that she became very anxious that some operation should be performed which might give relief Just below the ribs, on the right side, was a fatty tumor of the size of a plum, but this was soft and free from tenderness, and clearly not the cause of the neuralgia On pressure over each of the much-atrophied mammary glands, a few drops of fluid, resembling milk, could be forced out through the nipple This fluid, which was secreted more abundantly during the paroxysms of neuralgia, presented under the microscope an abundance of oil-globules of different sizes, and a few round cells, containing oil globules As the neuralgic pains were much more severe on the right than on the left side, the operation was performed on the right intercostal nerves, from the fourth to the tenth The incision was begun in the axillary line, and carried obliquely backwards and downwards, from the upper margin of the third rib to the lower margin of the tenth rib The processes of the serratus magnus muscle having been divided, and the external intercostal muscles separated from the lower margins of the corresponding upper ribs, the seven intercostal nerves were exposed, and each forcibly stretched in a centripetal and a centrifugal direction The patient made a very speedy recovery From the date of the operation she was able to sleep soundly at night, and complained only of occasional slight "dragging pains" on the right side of the chest, and a feeling of compression over the lower intercostal spaces Up to the time of her discharge, on the eleventh day after the date of the operation, there had not been any return either of the paroxysms of pain or of the mastodynia

RAPID RECOVERY AFTER WOUND OF STOMACH AND PROTRUSION OF VISCERA —A remarkable case of recovery, after severe abdominal injury, is reported in the *Gazetta degli Ospitali*, by Dr Iginio Tansini (*Lancet*) P G , aged 46, a peasant of Lodi, was admitted into the local hospital on the 10th of August, in a state of drunkenness, with an extensive wound in the left hypochondriac region Through it protruded the stomach, the transverse colon, and a large part of the great omentum On the anterior surface of the stomach was a wound an inch and a quarter long, through which the lining of the mucous membrane bulged so as to fill it That wound was closed with two fine catgut sutures After cleaning the displaced viscera with cotton pledgets dipped in a 2½ per cent solution of carbolic acid, reduction was attempted, but the tightness of the edges prevented it As the wound reached upwards to the costal margin, it was extended an inch downwards, and the viscera replaced The parietal wound was then found to measure three and a half inches A considerable amount of blood having accumulated in the abdominal cavity, the toilette of the peritoneum was very carefully performed with carbolized gauze soaked in warm carbolized water The first pledgets brought away blood, and others were introduced amongst the coils of intestine and into the pelvis, until they came away quite clean After inserting a thick drainage-tube into the lower angle of the wound, this was closed with four deep and four superficial sutures of carbolized silk, a broad antiseptic dressing followed Progress was uninterrupted, no fever supervened In the first three days much bloody fluid was carried off by the drainage-tube, which was gradually shortened, and definitely removed the eighth day On September 5, the twenty-sixth day after admission, the patient left the hospital perfectly cured

INJECTIONS OF ETHER AND IODOFORM IN COLD ABSCESS —Professor Verneuil (*Remede Therapeutique Med Times*) obtains a rapid cure in almost all his cases of cold abscess from diseased bone, or from congestion, etc , by ethereal injections of iodoform, of the strength of one in twenty The abscess is first emptied by means of Potain's aspirator, and then receives from 100 to 300 grammes of the iodoform solution By not exceeding this quantity (*i e* , five to fifteen grammes of iodoform) no fear of accidents need be felt The liquid penetrates into all the anfractuosities and diverticula of the abscess, the ether becoming absorbed or evaporated, and the antiseptic agent being deposited uniformly on the pyogenic membrane, the action of which it modifies This simple means, so exempt from danger and so easy of application, has proved highly successful, very large abscesses having yielded to three or four injections

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OBSTETRICS AND GYNÆCOLOGY.

LOCAL APPLICATIONS IN INTRA-UTERINE DISEASE —Dr Lombe Atthill discusses this subject quite fully (*British Medical Journal*) in his introduction to a discussion in the Section of Obstetric Medicine of the British Medical Association Speaking of oppositions encountered, he quotes from a writer in the Edinburgh *Medical Journal* in 1872, who, in reviewing his (Atthill's) first edition of Lectures on the Diseases Peculiar to Women, in which he advocated the treatment of a granular condition of the intra-uterine mucous membrane by the application to it of fuming nitric acid, said "Patients thoroughly treated in this manner will certainly have no more menorrhagia, they may be glad if they have even a uterine cavity left" He first of all points out briefly what are the conditions which demand the direct application of medical agents to the intra-uterine surface These may be briefly summed up thus All affections of local origin giving rise to profuse menstruation, metrorrhagia, or uterine catarrh, or in which hyperæsthesia of the nerves distributed over the inner surface of the uterus exists Polypi, or tumors capable of being surgically treated, are excluded, but certain forms of recurrent growths and of malignant diseases are to be included By the term "of local origin" is meant all affections depending on an unhealthy condition of the uterine walls, and of the mucous membrane lining the cavity, or of that membrane alone

In analyzing his cases, he finds that he employs carbolic acid in nearly 70 per cent , iodized phenol in about 15 per cent , and nitric acid in hardly more than 3 per cent

Borax is a mild astringent, and may be employed with advantage in cases in which uterine catarrh continues, after the application of more energetic agents has removed the urgent symptoms Dr Atthill generally employs it in the form of a saturated solution in glycerine

Iodine is, next to borax, the least active of these substances This is probably due to the fact that the uterus seems to absorb very sparingly, if at all, any agents applied to its inner surface They seem to be of value chiefly in proportion to their power of acting as a caustic

Carbolic acid When the mucous membrane of the cavity of the uterus is painted over with a solution of carbolic acid, pain, in the majority of cases, is complained of, but this dies away rapidly, unless there be some inflammatory action present, or the os internum be contracted Indeed, in many cases carbolic acid relieves pain, and while the passage of the uterine sound through the os internum, or pressure of its point against the fundus, causes pain the passage of the probe, armed with cotton saturated with a strong solution of carbolic acid, causes much less, or none at all Carbolic acid is a mild caustic, causing a superficial slough to form, which peels off in about *twenty-four hours* *Therefore, to produce a permanent* effect it must be applied at short intervals of about three or four days, and its use continued for some weeks

Iodized phenol, that is, pure iodine dissolved in carbolic acid by the aid of gentle heat, in the proportion of one part of iodine to three or four of carbolic acid, as introduced by Dr Battey, of Georgia, is one of the best, and certainly in some cases the best of all these agents

Nitric acid is the most active of all the agents we apply to the interior of the uterus Nevertheless, it causes very little pain, and its direct effects pass off quickly, for it only makes a superficial slough, which peels off in a day or two, still it requires to be used with great care, and it is necessary to use special precautions to prevent its effects from extending beyond the intended limits Thus, it should never be applied to the cavity of the uterus unless the cervical canal be protected by the introduction of a tube of vulcanite or platinum, otherwise, contraction of the cervical canal, and possibly closure of the os uteri, may follow

Iodoform in the shape of slender crayons made up with gum, which can be passed through the cervical canal into the cavity of the uterus, has been recommended in the treatment of some forms of painful menstruation Dr Atthill has not found it to be of much benefit, it may be used with advantage where there is a fœtid discharge, as in some forms of chronic endometritis occurring in elderly women

Nitrate of silver introduced by Simpson's silver uterine *porte-caustique* in ten grain quantities, dissolves slowly, and cauterizes, in a superficial manner, the mucous membrane lining the cavity and cervical canal, this peels off in a few days, and is discharged, generally with the escape of some blood Used in cases of menorrhagia depending on imperfect involution of the uterus, it often acts in a satisfactory manner, stimulating the uterus to contract, and rendering the mucous membrane much healthier, but it is a painful application, and sometimes gives rise to troublesome symptoms It possesses one advantage, that it seldom has to be applied a second time

But cases are met with in which the method of swabbing out the cavity is altogether insufficient, and in at least four distinct conditions it will be found necessary to adopt other means

1 When the uterine mucous membrane is so vascular that the introduction of the probe is followed by hæmorrhage sufficiently profuse to neutralize the effect of the caustic or astringent agent carried up by it

2 When (as when chronic endometritis exists in a very imperfectly involuted uterus) the cavity is of large size

3 When hæmorrhage occurs as the result of vascular growths, which, if removed, are rapidly reproduced, and lastly

4 *When epithelioma affects the cavity of the* uterus

To illustrate these classes Dr Atthill gives the details of cases in which he derived benefit from the injection through an intra-uterine syringe of drachm *doses of iodized phenol, diluted to one-half strength* with alcohol, and in some repeated weekly He claims that this treatment obviates the necessity of dilating the uterus, in a certain number of cases in which we have good grounds for believing that uterine hæmorrhage depends for its origin on an unhealthy condition of the mucous membrane lining the cavity of the uterus, the result of imperfect involution, but it will not obviate that necessity when the diagnosis is doubtful, next, that it will prolong life for at least a considerable period, in cases where epithelioma attacks the interior of the uterus as a primary disease, in which the only alternative is the performance of Freund's operation, thirdly, that it is a valuable supplementary treatment in cases in which, after the removal of an intra-uterine growth, the hæmorrhage continues, the mucous membrane lining the whole of the cavity being in an unhealthy condition, and lastly, that, in many cases of uterine fibroid, it enables us to tide the patient over the danger, till, the climacteric period being reached, life becomes safe. To carry out this treatment safely, only two precautions are necessary, first, the cervical canal must be patulous, so as to admit with ease the entrance of the tube of the syringe, and to permit the free egress of the fluid back into the speculum, should the cavity be too small to contain it, and, secondly, that only a very small quantity must be injected at a time, and in order that an error in this respect be impossible, the syringe used should not be capable of holding more than a drachm of fluid To sum up

1 Carbolic acid, in the proportion of one part of spirit to two of the acid, is the safest and most generally useful of all the agents employed

2 Carbolic acid should always be applied by means of a probe, round the point of which a layer of cotton is rolled, the cotton being carried up to the fundus at least twice on each occasion that the applications are made, which should be on every third or fourth day, till marked improvement takes place

3 Carbolic acid should never be injected into the uterus except when combined with iodine, in the form known as iodized phenol

4 In many cases, iodized phenol may with advantage be applied by means of a probe

5 In cases in which metrorrhagia or profuse menstruation occurs, depending on an unhealthy condition of the intra-uterine mucous membrane, the cavity being dilated and the uterus enlarged, from half a drachm to a drachm of iodized phenol may be injected with great advantage

6 In cases in which epithelioma attacks the mucous membrane of the cavity, the injection of iodized phenol promises better results than any other treatment

7 The success likely to follow the injection of iodized phenol renders the dilatation of the uterus, the use of the curette, and the subsequent application

of fuming nitric acid, less frequently necessary than has been the case hitherto

8 The injection of iodized phenol requires to be carried out with so much care, that it should never be injected except by means of a syringe which will not contain more than one drachm

9 The use of the fuming nitric acid should be limited, as a rule, to those cases in which dilatation has been practiced, and it should always be applied through a tube, inserted into the cervix uteri for the purpose of protecting the sides of that canal from the action of the acid

10 The pain produced by the application of any medical agent to the intra uterine cavity does not bear any relation to the activity of that agent, but is due to one of two causes—either to hyperæsthesia, or to narrowness of the cervical canal, especially of the os internum

MEDICINE.

PICRIC ACID AS A TEST FOR ALBUMEN AND SUGAR IN THE URINE —Dr George Johnson gives in the *Lancet* a summary of the results of the trial of this test during the past two years The objections to its use as an albumen test have been first, that it gives with peptones a precipitate not distinguishable from albumen But the peptonous precipitate, unlike the albuminous, is completely redissolved by heat much below the boiling point of water Nothing can be easier than to separate peptones from albumen if they should be combined in the same urine This may be done in two ways 1st The albumen having been coagulated by heat, the peptones, which are not affected by heat, may be separated by filtration 2d The mixed peptones and albumen having been precipitated by picric acid, the peptones are redissolved by boiling, and then separated by pouring the boiling liquid on a previously heated filter The coagulated albumen will be left on the filter, while the picrate of peptones in the filtrate will be reprecipitated on cooling

Second It has been truely stated that picric acid gives with the vegetable alkaloids a precipitate like albumen, it is, however, completely redissolved below the boiling point of water It is only when large doses of the vegetable alkaloids are introduced into the stomach, such as a five-grain dose of quinine, that enough escapes through the kidneys to give a precipitate with picric acid Cases may occur, such as those of poisoning by opium or its alkaloid, in which picric acid as a urinary test for morphine might be of practical value

Third It is a fact that picric acid, like nitric or any other acid, when added to urine, sometimes, though rarely, causes a turbidity from precipitated urates, this precipitate, however, unlike albumen, is at once and completely redissolved by heat

Fourth Picric acid is the only common test for albumen, except heat, which has no apparent effect on mucin Picric acid with acetic or citric acid causes a mucin haziness in most, if not all, normal urines One of the most conclusive proofs that picric acid does not coagulate mucin, is afforded by the following experiment Add to an albuminous urine of normal acidity an equal volume of picric acid solution, then boil, so as to ensure the complete coagulation of the albumen, and filter Add a few drops of acetic or citric acid solution to the clear filtrate, and the result will be, in a minute or two, the appearance of a slight, but perceptible, haze of mucin, which the combined influence of picric acid and heat had left in the solution, and so passable through the filter Picric acid will not coagulate albumen in an highly alkaline and ammoniacal urine, then the safest method of procedure is to acidify with acetic or citric acid, filter, and add picric acid to the filtrate The mucin coagulated by the acetic or citric acid will remain on the filter, while the albumen, if present, will pass through The mucin of normal urine must not be confounded with the morbid *mucus* from an inflamed or catarrhal mucous membrane, which is allied chemically and microscopically to pus, and, like pus, contains albumen Its presence renders the secretions visibly turbid, and the turbidity must be removed by filtration before the tests for albumen can be conveniently applied The most delicate test for a minute trace of albumen is to allow the picric acid solution to *mix*, and not merely to come in contact, with about two inches of the upper part of a long column of urine in a test tube, and then to boil the top of the liquid The more or less turbid upper layer contrasts with the clear urine below The slight haziness caused by a mere trace of albumen is always increased by heat, while the turbidity caused by urates, etc , is completely removed by heat If the urine before testing is rendered turbid by urates, these must be removed by heat before the picric acid is added, and if by mucus or other floating particles, the fluid must be cleared by filtration

The ready method of qualitative albumen and sugar testing consists in adding to about a drachm of urine in a test tube, an equal volume of picric acid solution This, when boiled, affords a certain indication of the presence or absence of albumen, then, whether albumen be present or not, add about half a drachm of liquor potassæ (P B), and boil for about half a minute Any coagulated albumen that may be present is redissolved by the alkali, and the resulting color in a non-saccharine urine is claret red If any red color is visible, there is less than two grains of sugar per ounce A solution of glucose, in the proportion of two grains to the ounce, after boiling for a few seconds with picric acid and potash, appears quite black until it is diluted with water The materials for bedside albumen and sugar testing may be carried in solid form in a pocket test case, the picric acid in powder and the potash in grain lumps

THE PATHOLOGICAL APPEARANCES IN NEW BORN CHILDREN OF DEATH BY ASPHYXIA, AND THEIR MEDICO-LEGAL SIGNIFICANCE —Dr Alfred Notiling gives (*Aerztliches Intelligenzblatt Medical Chronicle*) a report founded on post-mortem examinations of 178 children born at the ninth month, 138 between the seventh and ninth, and 142 fœtuses born alive between the fourth and seventh months The writer describes the changes characteristic of asphyxia and those due to external violence of criminal or other intent

The cases of death from asphyxia had the following special features In all the serous membranes and in the different mucous membranes, blood extravasations were found in the greater number of cases, and almost without exception sub-pericardial and sub-pleural hæmorrhages were present Extravasations were also often present in the spleen, kidneys, thymus gland, the connective tissue surrounding the pancreas, and under the scalp, epicranial aponeurosis and pericranium

In the middle ear and nasal fossæ there was almost always a dark red discoloration of the mucous membrane, and in many cases also blood was exuded

Hæmorrhages into the conjunctiva and retina, and in the form of small striations in the vocal cords, were of frequent occurrence

Extravasations into the tissue of the lungs was very rare, and blood was never found in the alveoli or bronchi unless it had come from the nose of the child or from the genital passages of the mother through aspiratory efforts

If death had not been brought about very rapidly, œdema of the lungs, larynx and nasal mucous membrane was found, and sometimes interstitial emphysema, the latter, however, not being uncommon even in case of rapid asphyxia

In the bones and muscles there were no changes, except great fullness of the blood vessels

Dr Notiling gives the following conclusions

1 Large blood extravasations in the skin are always the result of external violence

2 Effusions of blood in the muscles of the neck and in the course of the great vessels of the neck, point clearly to attempted strangulation

3 Hæmorrhages between the liver and its capsule, and in the liver substance, are always the result of external violence

4 Lesions of the peritoneal membrane, and rupture of the liver, spleen and kidneys, are due to violence They may be caused by the firm grasp of a hand round the child's body, and are not uncommon after attempts at artificial respiration

5 Hæmorrhages in the umbilical cord are very rarely caused during the act of birth, or during attempts at replacement in cases of prolapse of the cord They are almost always due to violence of some form, especially to tearing the cord

6 Thick circular blood extravasations on the head or other parts of the body may be due to either difficult labor or external violence

7 Hæmorrhages in the lips, muscles of the tongue, palate, or gullet, should raise a suspicion of violence This will be confirmed if slight wounds of the mucous membranes of the parts affected are found

8 Swelling of the lips, if not accounted for by the position of the face, during parturition, must be considered a sign of the pressure of a hand on the child's mouth

9 Hæmorrhage into the external auditory meatus and external ear was not observed in any of the cases This is always due to external violence

10 Ecchymoses in the muscles, unless the result of difficult labor, etc , are always due to violence

11 If asphyxia is caused by immersing the child in some fluid medium or in dust, this will very frequently be found in the nose, mouth, throat, stomach, or lungs

12 Blood in the trachea, bronchi, and alveoli is usually due to aspiration from the maternal passages or from the child's nose

If ecchymoses in the muscles are due to operative interference, and not to criminal acts, we must remember that the presentation of the child will probably have been abnormal, and in this case the caput succedaneum will not be on the head, but on some other part of the body , therefore the presence of a caput succedaneum on the head, with signs of external violence, will make us suspect criminal interference

CONDUCTION OF PHYSICAL SIGNS IN DISEASES OF THE LUNGS —Dr Markham Skerritt read a paper on this subject before the Medical Society of London He said (*Lancet*) that it was universally recognized that the lung tissue acted as a conducting medium for physical signs in heart disease, but it was not so fully appreciated that the physical signs of lesions of the lungs themselves might be detected at a distance from their source It might be stated (1) that physical signs due to disease of a limited portion of lung were liable to be conducted by the adjacent tissue so as to be recognized at a distance from the site of the lesion, as in front when the disease was at the back, or on the sound lung when one lung only was affected, (2) that it was therefore as important to trace to their origin the physical signs dependent upon lung disease, as it was to follow out those of a cardiac lesion Instances were adduced of the adoption by a consolidated lung of the signs of pneumothorax derived from the opposite side , the transmission to the sound side of the tubular breathing of pneumonia, the interchange of physical signs between the affected side and the unaffected in pleuritic effusion, the conduction of the physical signs of phthisis from one apex to the other, and the conveyance throughout the pulmonary region of sounds having a strictly localized origin The physical signs most liable to conduction were those of auscultation , and of these, chiefly râles and altered breathing In the localization of a conducted sign in lung disease the process was the same as in the case of a cardiac lesion In conduction a physical sign (1) retained its special quality , (2) lost in quantity in proportion to the distance from its source The readiness with which a physical sign was conducted was also of value as an indication of the state of the transmitting tissue The subject of the paper was one of considerable importance, as instances had been met with where error had resulted from a want of due appreciation of the facts adduced

In the discussion which this paper elicited, Dr Theodore Williams remembered several instances in which it had been difficult to arrive at a correct diagnosis, from physical signs being conducted away from the place at which they originated. Dr. Kingston Fowler said it was very common to find that the physical signs of a cavity at one apex of the lungs were conducted to the opposite apex.

GASTRITIS FAVOSA. A NEW DISEASE.—At a meeting of the Vienna Imperial and Royal Society of Physicians, Professor Kundrat exhibited specimens of a unique kind (*Lancet*). The case was one of favus universalis, which had given rise to an abscess of the thigh, and had terminated fatally from severe gastro-intestinal disorder, marked by an uncontrollable diarrhœa. Numerous erosions, mingled with diphtheritic swellings, were found in the mucous membrane of the stomach, and the intestines contained some foul putrescent masses, and much mucus. Professor Kundrat at once declared the diphtheritic swellings to be due to the favus fungus, a view which was confirmed on microscopic examination. This is the first recorded instance in which the mucorineæ have been the cause of death, as it is the first of favus of the stomach and intestines. Indeed, the naked-eye appearance of the tumors in the stomach closely resembled the favus cups on the skin, and the fact that but little of the fungus was found in the intestine was explained by Professor Kaposi by their having undergone putrefaction in the bowel. The patient had previously been shown to the Society by Professor Kaposi as a rare instance of favus which covered the entire body, affecting even the finger-nails (attributed to his habit of scratching himself constantly). Favus of the stomach is as unknown a condition in animals as it is in man; at any rate, Professor Croker, of the Vienna Hospital for Animals, stated that it never occurred in cats, although these animals frequently eat rats infested with the fungus. Professor Bamberger suggested that in this case the gastric mucosa was in an unhealthy condition at the time of infection, thereby affording a favorable nidus for the growth of the fungus. It must be borne in mind that the mucorineæ, unlike the schizomycetes, can thrive in acid liquids, and may therefore grow with impunity in the stomach. The case is of great importance, as showing that if they do gain access to the interior of the body, these fungi may be a source of danger and lead to a fatal result, thereby disproving the usually accepted notion of their harmless character.

ON THE SECRETION OF BILE.—Dr. Baldi has recently undertaken (*Lancet*) a series of experiments on the process of secretion of the bile, in the laboratory of M. Luciani, of Florence, in which he has endeavored to ascertain whether it takes place in a uniform manner in accordance with the presence or absence of food in the alimentary canal, and whether it varies materially with the nature of the food.

The results are given in the third volume of the *Archives Italiennes de Biologie*. A biliary fistula was first made, the ductus communis choledochus being ligatured so that no bile entered the duodenum. Dr. Baldi found that there was a singular irregularity in the quantity of the secretion formed, distinguishing the functions of the liver from all other digestive secreting organs. Not only was there great variation in the absolute quantity secreted, but the composition of the bile differed remarkably at different periods after a meal. Speaking broadly, in an animal that has been supplied with food, there is an augmentation in the total quantity of bile secreted in the course of some hours, as compared with the quantity secreted in the same time by the animal when fasting. It is not possible, however, to fix the time at which the secretion of bile after food is at its maximum; indeed, it is even possible that the maximum may be attained during some one hour when the animal is fasting.

Different kinds of foods, starches, proteids, fats, and mixed foods, have no appreciable effect on the quantity or quality of the bile. If we consider, in addition, that, unlike the other secretions which are poured into the intestinal tract, the bile continues to be secreted in prolonged fasting, as has been demonstrated by various experiments, we shall be led to the conclusion that this fluid, from a physiological point of view, has more analogy with urine than with the other digestive fluids. In a second series of researches, in which the effects of reputed cholagogue drugs were investigated, Dr. Baldi is not in accord with either Röhrig or with Rutherford. Rohrig found that colocynth was the most active cholagogue; then, in succession, jalap, aloes, senna, and rhubarb. Rutherford considered the order to be—podophyllin, rhubarb, aloes, colocynth, senna, and other drugs. Baldi experimented with podophyllin, rhubarb, jalap, sodium phosphate, pilocarpine, and Carlsbad water, and, from his results, feels inclined to doubt altogether the cholagogue value of all these substances. He admits, however, that the presence of a biliary fistula seriously interferes with the action of remedies. Dr. Baldi undertook still another series of experiments, to determine whether bile injected into the blood was excreted by the liver. The animal employed was the dog. The bile injected was that of the ox deprived of mucus. Dog bile is brown, ox bile green. Almost immediately after the injection of ox bile the color of the bile secreted by the dog became green.

RESORCIN IN THE TREATMENT OF POISONED WOUNDS.—Justus Audier relates a series of cases (*Monatshefte in praktische Dermatologie*, *Edin. Med. Jour.*) where severe local inflammation, accompanied in some with lymphangitis, and general constitutional disturbance followed wounds on various parts of the body. Some of these were dissection wounds, others poisoned by the contamination of chemical agents. In all the instances narrated the inflammation subsided, and the pain and constitutional symptoms ceased within a few hours after the application of a resorcin-vaseline salve. The strength of this is only given in one case, equal parts of each; in the others the percentage of resorcin is said to have been high. That absorption of the resorcin took place was shown by the urine assuming a brownish green color. The details of the cases are given.

THE
Journal of American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, FEBRUARY 7, 1885

IS ABILITY to tolerate large doses of a medicine in any given disease without manifesting its ordinary effects, evidence that such medicine is of remedial value in the treatment of the disease?

We have been induced to ask this question by the frequent appearance of articles in medical journals, and of reported cases in papers read before medical societies, in which very large doses of known active medicinal agents have been given in certain acute general diseases without inducing any correspondingly exaggerated effects And this apparent tolerance of the remedy has generally been mentioned as one of the evidences that it was specially indicated in the treatment of the disease The most recent illustrations of this have been in reference to the use of alcohol in the form of whiskey or brandy, and of mercurials in the treatment of diphtheria To the extravagant use of the latter, particularly in the form of calomel, we had occasion to allude in these columns , few months since Since that time, however, there has appeared in this journal the paper on diphtheria read in the Section of Diseases of Children by Dr Brown, with the discussion thereon a the report of cases of the disease treated with large doses of whisky in the proceedings of a recent meeting of the Chicago Medical Society, and the paper of Dr Batten, in the present number, in which he speaks of giving it freely in all stages of the disease Some of these writers, and several of those who took part in the discussions, mention the giving of from 130 c c, to 260 cc, or four to eight ounces of whisky or brandy per day, generally mixed with milk and sugar, to children suffering with diphtheria between three and ten years of age, for several days in succession It is well known that such quantities given to children of the same ages in health, generally produce, first, intoxication and then profound anæsthesia or unconsciousness, and in some instances on record, death has ensued But the almost uniform testimony is, that in the cases of diphtheria, no symptoms of intoxication follow the administration of the alcohol, and this is alluded to as evidence that the remedy is both strongly indicated and well borne Is this, however, a necessary or justifiable inference from the premises? Is tolerance of unusually large doses, or apparent insensibility to the ordinary effects of any remedy during the progress of an acute disease, proper evidence that such remedy is either indicated or acting beneficially? On the contrary, is it not rather strong proof that the morbid conditions present have so diminished or perverted the nervous sensibilities and molecular movements that the remedy is neither taken up with facility nor its presence responded to as in health, and consequently that it is not capable of acting as an efficient remedy while such morbid conditions continue?

It is hardly three decades of time since the same reasoning was applied to the use of opiates and anæsthetics in the treatment of tetanus, delirium tremens, etc We were pointed to the very large quantities of those powerful agents that patients laboring under the diseases just named usually tolerated without marked effect, as evidence of the propriety of their use And not a few were dosed so actively that when the morbid conditions begin to decline, the quantity of medicine in the system speedily developed profound stupor and sometimes death Such results are liable to occur from the indiscriminate administration of any active drug in large doses frequently repeated during the progress of all acute self-limited diseases And nothing is easier than to deceive ourselves in regard to the benefits of medicine unless we carefully note all the circumstances connected with the natural history of the disease we may have under treatment For instance, it is well known that diphtheria has its stage of development, during which the membranous exudation and tumefaction of the glands and tissues involved are increasing, which may last from two to four days, the stage of maturity, during which the exudation disintegrates, and the inflamed tissues begin to undergo resolution, ulceration, or gangrene, according to the grade of severity, which lasts from three to five days, and the stage of repair or convalescence that may occupy from one to three weeks. It is easy to see that a physician coming to his patient near the end of the first stage for the first time (which is often the case) and prescribing some particular remedy, might find the next day a marked change for the better indicated by less fever and loosening or disintegration of the membrane, and what more natural than to conclude that his remedies had produced the change when in truth they had nothing to do with it, or might have been even injurious in other directions?

Again, it is known to all who have given attention to the subject that diphtheria, like most other zymotic or acute infectious diseases, varies greatly in its severity in different seasons and in different families and localities in the same season, and also pretty uniformly displays its highest degree of malignancy at the commencement of an epidemic outbreak.

In consequence of these natural differences the ratio of deaths vary greatly under precisely the same treatment, or without any medication whatever. Thus thirty years since, at the beginning of one of the most extensive epidemics of diphtheria in this country, in a little town in New England, of the first fourteen cases thirteen died. Before the same general epidemic period was passed, during a well-marked prevalence of the disease in a neighborhood near Milwaukee, Dr. Wells reported 133 cases coming under his observation in one season, only four of whom died, and three of the four were in the first family attacked. If Dr. Wells had reported the first seven cases separately, as did Dr. Chandler at a recent meeting of the Chicago Medical Society, like the latter he would have had three deaths in the first seven cases, and only one in the remaining 126, and that without any use of whisky or brandy for any of them. Dr. Batten, whose article is in the present number of the JOURNAL, and who recommends the use of alcoholic remedies in all stages of the disease, claims 80 per cent. of recoveries, *i. e.*, one death in every five cases, which is certainly a high ratio of mortality for the disease as it usually occurs from year to year in any given community. We call attention to the foregoing sources of fallacy in estimating the effects of remedies because we are satisfied that the present popular tendency to use large doses of alcoholic remedies in diphtheria is productive of positive detriment to the patients.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—The official notice of the Permanent Secretary for the thirty-sixth annual session of the National Association, to be held in New Orleans, La., commencing on Tuesday morning, April 28, 1885, will be found in the present number of this journal under the head of Miscellaneous Matters. Let all readers interested read the notice carefully, as it gives the ratio of representation by delegates from State and local medical societies, the officers of Sections, the by-laws relating to presentation of papers, and some proposed amendments to the constitution and by-laws.

As the great International Exposition will continue open until the 1st of June, and the railroad lines promise liberal reductions of fare over the more important routes to New Orleans, the circumstances are favorable for a full and important meeting.

ANOTHER UNIVERSITY OF PHILADELPHIA DIPLOMA HEARD FROM.—*The Australasian Med. Gazette*, Oct. 15, 1884, contains a letter from a writer who signs himself V. E. Herbert, M. D., who complains that the Medical Board of New South Wales has refused to register his diploma for the degree of Doctor of Medicine granted by the University of Philadelphia, U. S., "this University being one whose degrees are recognized and well thought of in that country." The writer moreover declares himself to have been for twelve months an assistant surgeon in the American navy. He goes on to say: "I know full well that American diplomas are deservedly unpopular, because so many of them are obtained almost without study. But this was not my case." He also claims a license from the School of Medicine of New York. The editor, in his comments upon the letter, does not appear to have the slightest suspicion that there may be any irregularity in the character of the diploma itself.

THE ETIOLOGY OF THE OPHTHALMIA OF NEW-BORN INFANTS.—Zweifel (*Arch. für Gynäk. Rev. Mensuelle des Maladies de l'Enfance*) asks if the ophthalmia of new-born infants may be produced by the normal utero-vaginal discharge (lochiæ), by the secretion furnished from catarrhal inflammation of these parts (leucorrhœa), or by a specific infectious agent (blennorrhagia). Neisser has described a special diplococcus gonorrhoæic which may be the microbe of blennorrhagia and which may be the cause of ophthalmia in the newly-born.

Zweifel has collected by the use of the pipette some of the lochiæ from the vaginæ of newly delivered women who were perfectly healthy, which under the microscope did not give any traces of the gonococcus, and has inoculated this liquid into the conjunctive cul-de-sac of six new-born infants, but there followed no trace of inflammation or suppuration, and he arrives at the conclusion that in order to have purulent ophthalmia in a new-born child there must be blennorrhagic inflammation of the genitals of the woman.

SOCIETY PROCEEDINGS.

CHICAGO GYNÆCOLOGICAL SOCIETY.

Regular meeting of the Chicago Gynæcological Society, Friday evening, January 16 1885 The President, Dr H P Merriman, in the chair

Dr E C Dudley read a paper on an interesting and unusual case of double ovariotomy The specimens were subsequently exhibited

The patient, 18 years old, unmarried, came to Mercy Hospital, about 18 months ago, to consult Dr Dudley about marked abdominal enlargement The diagnosis of monocystic tumor of the parovarium or broad ligament was made The cyst was aspirated, and two gallons of fluid were removed This fluid possessed the following characters Sp Gr , 1000 5, neutral reaction , limpid as water , odorless , colorless, on microscopical examination no morphological constituents were detected , on chemical examination certain mineral salts were found, but no albumen

The patient experienced so much relief after aspiration, that she left the hospital with the impression she was permanently restored to health

About three months ago she visited Dr Dudley at his office It was found the cyst was partially refilled An operation was determined upon

The preparatory treatment of the patient, — apart from tonics, the most nutritious of foods, frequent baths, and finally a Turkish bath immediately preceding the day of operation, — consisted in the exhibition of remedies, designed to increase the tonicity of the muscular coats of the intestines, and to expel all the gases For this purpose the patient was given, two or three times daily, a mixture of columbo, rhubarb, and compound tincture of cardamom In a case, operated upon early in the autumn, Dr Dudley had experienced much difficulty in the management of the intestines, which were distended with gas In this case, subjected to the preparatory treatment just detailed, absolutely no difficulty in that direction was encountered

The *mons veneris* was shaved, the vagina irrigated immediately before operation

The details of rigidly antiseptic surgery were observed with reference to the operating room, instruments, operator and assistants

On October 29, Dr Dudley, asisted by Dr W W Jaggard, Dr R W Bishop, and Dr W E Casselberry, performed ovariotomy, and removed both ovaries and tubes, together with a large monocyst of the left broad ligament The pedicle of the large cyst was very vascular and, after transfixion with the passage of the ligature around each half, the operator was compelled to ligature *en masse* below the point of transfixion The pedicle was afterwards seared above the Baker-Brown clamp, with Paquelin's thermo cautery Ether was employed as the anæsthetic

The patient reacted well At noon, two hours after operation, temperature 100 7°, pulse 150 respiration 20 She complained of nausea Evening temperature 100 8°, pulse 115, respiration 20 Nausea continues , no tympanites

Oct 30, morning, temperature 100 4° , pulse 112 , respiration 20 Evening, temperature 101°, pulse 124, respiration 20 Throughout the day the patient moaned and tossed, complained of nausea, vomited incessantly A peculiar, talkative delirium ensued Morphia and atropine were given to suppress vomiting, discontinued the atropine, fearing its cerebral action Hot water, as suggested by Mr Keith, was tried, with hope of checking nausea and vomiting, without success The deodorized tincture of opium was substituted for morphia The talkative delirium, nausea and vomiting continued unabated The patient retained only a little ice water at long intervals

Oct 31, morning, temperature 99 8° , pulse 110 , respiration 20 Evening, temperature 99 8° , pulse 110 , respiration 20 Nervous symptoms greatly exaggerated , nausea and vomiting unabated , pain in the abdomen, complained of at intervals Cordeia was substituted for the other opiates Small quantities of milk and lime water, at intervals, were exhibited The patient remained in the same condition talkative delirium, no sleep, nausea and vomiting, pain in the abdomen, at intervals, no tympanites

Nov 1, morning and evening, temperature 99 7° , pulse 106, respiration 20 Talkative delirium, nausea, vomiting of bile,—the “mouth-filling” of Mr Keith,— abdominal pain , no tympanites She commenced to menstruate, or, at least, blood began to escape from the vagina

Nov 2, morning, temperature 98 8° , pulse 114, respiration 18 Evening, temperature 98 6° , pulse 135 , respiration 21 Nervous symptoms more distressing , nausea and vomiting continuing , patient becoming emaciated , face taking on a pinched, anxious expression Valentine's beef juice exhibited , mustard to epigastrium , strychnia, in small doses , champagne , bisulphate of quinine, *per rectum*

Nov 3, morning, 8 A M , temperature 101°, pulse 130 - 10 A M , temperature 101 2°, pulse 160 10 30 A M , temperature 101 6°, pulse 178 Persistence of wild, talkative delirium, nausea, vomiting, abdominal pain The pulse, while very rapid, was not the feeble pulse of collapse

In a consultation with Dr W H Byford on the previous day, it was decided that the patient was dying of exhaustion Dr Byford was averse to reopening the abdominal incision

Dr Dudley had one case of peritonitis following perforation of the posterior uterine wall, in Mercy Hospital, that died of septic poisoning, although the temperature did not rise above 100°

With the aid of Dr R W Bishop, Dr Dudley etherized the patient, removed four or five stitches from the lower end of the abdominal incision, and inspected the cavity of the abdomen The peritoneum was injected , no lymph was noticed, no gas in the intestines The pedicles were not covered with lymph A disinfected sponge on a holder was passed into the cul-de-sac of Douglas , about one-half of a fluid ounce of bloody serum was removed This red stained fluid was odorless, it was not further examined Feeling no good had been accomplished, the incision was reunited

This operation was performed at 10 30 A M Temperature at 12 M 101°, pulse 150, temperature at 2 P M 100°, pulse 144, temperature at 3 P M 100° pulse 135 temperature at 7 P M 100°, pulse 140 jactitation wild delirium, nausea and vomiting, pain in the region of the cœliac axis, no tympanites Rectal alimentation

Nov 4, morning temperature 100°, pulse 135–150 Whisky, beef tea and milk at regular intervals bisulphate of quinia *per rectum* persistence of the symptoms before detailed In the afternoon the tongue was dry, cracked, ready to bleed decidedly less nausea and vomiting The nurse was directed to give the patient an enema of soap and water, with extract of ox gall One quart of this mixture was injected into the bowel No evacuation of the contents of the rectum following, a tube was introduced, which was followed by that classical sign, the audible passage of flatus Mr Keith says that if the intestines have sufficient muscular energy to expel flatus, the prognosis becomes more favorable It is probable a reversed peristalsis occurred, and the injection was entirely absorbed One hour afterwards the tongue became moist

Evening temperature 101°, pulse 135 Acting on the suggestion from the enema, one quart of strong beef tea was introduced into the bowel

Nov 5, patient evidently in better condition temperature, morning and evening, 98–99° pulse 120–130° One quart of strong beef juice was exhibited *per rectum*, and carried well up into the bowel About three-fourths of this quantity was retained Slight nausea and vomiting Bowels were moved spontaneously, with evacuation of a large quantity of dark, tarry, fœtid fæces The sutures, originally inserted, were removed

Nov 6, morning, temperature 98 5° pulse 90 evening, temperature 98 1° pulse 115 Bowels were again moved spontaneously with evacuation of dark, tarry, fœtid fæces All the symptoms of the patient assuming a favorable character Beef tea, whisky, quinine, and nutrient enemata continued From this time on, the patient made an uninterrupted recovery At the end of two weeks she was removed to St Luke's Hospital She is now in good health and pursuing her usual avocation In conclusion Dr Dudley called attention to the three following subjects, and requested that the discussion should be more particularly limited to their consideration

1 *Preparatory Treatment of the Intestinal Tract* Is it possible to render the intestines manageable during an operation in the abdominal cavity by any dietetic or medical agencies? The escape of the intestines without the abdominal parities was a very distressing complication The shock of the operation was increased, large vascular areas were rapidly cooled, notwithstanding the fact that they might be enveloped in warm, disinfected fabrics It was not always easy to return the intestines to the cavity of the abdomen, and even then, there was danger of strangulation He was of the opinion that in the case reported, the rhubarb columbo and cardamom were active in restoring tonicity to the muscular coats, and in the expulsion of flatus

2 *The Retention of Enemata* It was a matter of surprise to him that one quart of fluid exhibited *per rectum*, on three successive days should be retained He supposed that the liquid portions of the injections were absorbed at once, in consequence of the state of the tissues, resulting from exhaustion The return of the tongue to a moist condition within a very short space of time immediately following the injection was evidence in favor of this explanation

3 *The Reopening of the Abdominal Incision* Had it done any good? What produced the excessive nervousness? What was the cause of the nausea and vomiting?

The problem was an intricate one It had been asserted that a very tight ligature around the pedicle can act as a reflex irritant The sutures in the abdominal incision are sufficient at times, to produce various obscure reflex symptoms He had one case, —his first case —in which uncontrollable vomiting yielded immediately upon the withdrawal of a rubber drainage-tube

It may have been that the case reported was just on the eve of recovery when the abdomen was opened

The fluid removed was small in quantity, and without odor The peritonæum however, can secrete with wonderful rapidity and then absorb the secretion He had not examined the fluid microscopically or chemically He had dusted into the cul-de-sac a small quantity of iodoform Whether *post hoc* or *propter hoc*, the patient recovered

If it was a case of exhaustion, the beef, milk and whiskey deserved the credit If a case of sepsis, the reopening of the incision was the potent factor In answer to a question by Dr Sawyer, Dr Dudley said that although the delirium of the patient was attended with visions of snakes alcohol was out of the question, from his own knowledge of the habits of the patient In answer to Dr Merriman's question as to the preparation of the ligatures, Dr Dudley said that silk thread was used exclusively for sutures and ligatures This silk thread was boiled for ten minutes in 95 per cent sol carbolic acid then for thirty minutes in 5 per cent sol carbolic acid finally, it was deposited in a solution of the bichloride of mercury, 1 to 4,000

Dr Dudley then exhibited the specimens The right ovary was slightly enlarged and in the commencing stage of cystic degeneration A cyst, about the size of a hickory-nut was found in the right broad ligament The left ovary was converted into a mass of fibrous tissue about the size and shape of a kidney Springing from the left parovarium or from the left broad ligament was the large monocyst. to which allusion has been made This cyst. at the time of operation, contained about forty pounds of fluid

DISCUSSION

Dr Henry T Byford thought that the reopening of the abdominal incision was unnecessary Relief could not have come from the removal of such a small quantity of fluid as one-half fluid ounce The improvement immediately following the operation was probably due to the stimulant effect of the ether The delirium seemed to him to be that of alcohol or cerebral anæmia He did not think that the symptoms of nausea and vomiting could be explained by any local irritant, such as ligatures, or sutures It was a case of exhaustion, cured by the judicious exhibition of beef, whiskey and milk

Dr Edward Warren Sawyer said the patient owed her life to the persistent bravery of the operator and congratulated him upon his success He was surprised to hear that no albumen was detected in the aspirated fluid Friedrichs says albumen is always present in such cases, but absent in echinococcus cysts

Dr Flavius M Wilder said that egg albumen in water was frequently tolerated by the stomach when other matters were rejected

Dr W W Jaggard thought the secretory and resorptive functions of the peritonæum were matters of positive knowledge Dr Anton Wolfler, in a recent paper, has taken substantially Dr Dudley's position It is quite possible that the one half fluid ounce of blood serum, found in the cul-de-sac, represented the ultimate stage of resorption of a much larger quantity of fluid

One-half fluid ounce of fluid, however, may contain enough sepsin or sufficient bacteria to produce the most fatal pyæmia There is no quantitative relationship in regard to the virulency of certain poisons

The mere reopening of the abdominal incision seems to act, under certain conditions, in a favorable manner The reason is unknown It is an empirical fact, acknowledged by a number of leading surgeons He thought Dr Dudley deserved great credit for his action in taking up the suggestions of numerous operators, when he knew positively no foreign body was contained within the abdominal cavity

Dr W E Casselberry wished to emphasize the importance of the preparatory treatment of the intestinal tract He had been present at both of the operations to which Dr Dudley had referred, and was struck by the difference in the behavior of the intestines The mixture employed by Dr Dudley resembled a favorite formula of the late Dr Geo B Wood This formula was advised for the expulsion of flatus, and restoration of tone to the intestinal muscular walls

Dr D T Nelson said it was highly important to avoid the use of opium when it was possible The less opium, in general terms, the less tendency to vomiting As to the pedicle, he entertained grave doubts as to the propriety of passing the ligature *en masse* In strangulated hernia, uncontrollable vomiting frequently resulted from the inclusion of omentum in the ligature Would it not be better to open the pedicle and pass a ligature around each vessel separately? He thought Bantock, Thornton and Spencer Wells advised the same treatment as in the securing of the vessels in an amputated leg

Dr Sawyer said he had seen Dr John E Owens remove a testicle, following the passage of the ligature around the cord, uncontrollable vomiting occurred

The reopening of the abdominal incision was looked upon with too much fear He had been present at an operation in which all the blood had not been removed from the cul de-sac, the patient died of septicæmia At the autopsy, Douglas's pouch was filled with blood, an operation might have saved life Another case in point, was one of normal double ovariotomy After the operation the patient sank rapidly The operator concluded the patient was suffering from internal hæmorrhage Twelve hours later the abdominal incision was reopened, and after two hours search the bleeding vessels were secured The patient recovered

Dr H P Merriman endorsed Dr Dudley's reopening of the abdominal incision in the case presented

In regard to the preparatory treatment of the intestinal tract, he was not certain that the exhibition of columbo, rhubarb and cardamon, had produced the favorable result in the one case, nor that the neglect of preparatory treatment was operative in the troublesome condition in the other He did not think the opium was the cause of vomiting, since the nausea disappeared while the patient was still under the influence of opiates He did not think the ligature *en masse* or the clamp could be replaced by the methods suggested by Dr Nelson The danger from hæmorrhage was too great It was an admirable subject for study If the pedicle was completely destroyed, the danger of pinching nerve filaments would be less The quantity of fluid removed after reopening the incision, was not sufficient to account for the improvement in symptoms

Dr Nelson referred to the compression forceps, and ligature placed above, as designed to obviate the inclusion of nerves still sensitive

Dr Dudley closed the discussion The mere opening of the abdomen seemed to act in a remarkable manner under certain conditions Tubercle of the peritonæum, papilloma of the omentum were pathological states which had been influenced favorably by the procedure

Cocculus Indicus is supposed to have the same effect as the mixture exhibited to prepare the intestinal tract

It was not necessary that a discharge should have a foul odor or be large in quantity in order to be capable of producing pyæmia

The Society adjourned to meet at the Palmer House, as the guests of Dr Sawyer and Dr Jaggard, on Friday evening, Feb 20, 1885

Dr H T Byford will read a paper on "The Functions of the Membranes in Labor"

The inaugural thesis of Dr Chas Caldwell, on "Two Interesting Cases in Obstetrics," will be discussed

W W JAGGARD, M D , *Editor*

2330 Indiana Ave , Jan 19, 1885

FOREIGN CORRESPONDENCE.

LONDON LETTER.

LONDON, Jan 7, 1885

A most valuable and important report by the medical officer of the local government board has just been issued as a supplement to the report of the board itself Dr Buchanan records the increasing recognition which, under Sir Charles Dilke, the medical staff of the board receives, and says that quite 6,000 questions were referred to it in 1883 His report tells the year's history of vaccination work, of medical inquiries into epidemics, and the communication of diseases by milk, and with a glance at the cholera, passes on to the important scientific investigations made during the year into the chemistry of putrefaction, as well as into questions of infection and disinfection, and the organisms which produce disease The anti-vaccinationists have not made much diminution in the use of the great prophylactic against small-pox The latest returns are for 1881, but they show that only 3 8 per cent, or, including postponed cases, 4 5 per cent of the children whose births were registered in that year are unaccounted for as regards vaccination Allowing for those who died during the period in which they may lawfully remain unvaccinated, the numbers vaccinated were twenty times those which remained unvaccinated Yet, among the unvaccinated children the deaths from small-pox were ten times as numerous as they were among the twenty-fold larger number of vaccinated children The rate of mortality from small-pox in the two classes was as 200 is to 1 Of the chances of the spread of cholera to England, Dr Buchanan does not venture to express an opinion He points out, however, that its presence in the Mediterranean is a much less formidable threat for England than an outbreak in the Baltic, though with the increased traffic between Asia and Europe this difference may be obliterated

There are reports, too, on local outbreaks of disease which give evidence of the watchfulness of the local government board over the public health If an outbreak occurs in a school, a village, or a town street, its origin is carefully traced, every circumstance connected with it is duly noted, and all the facts, with the practical inferences to be drawn from them, are set forth and acted upon So complete a system for the staying of local epidemics has never before been set up in any part of the world The progress made during the year in the use and application of disinfectants to disease is indicated in special and detailed reports by Dr Burdon Sanderson, Dr Klein and McDowdeswell One of the most striking points in the report of the board for 1883-84 is the list of towns in which compulsory notification of infectious disease has been adopted At the beginning of 1884 there were thirty-four towns, with an aggregate population of 2,653,565, in which it is the duty of the householder or of the medical attendant, or of both together, to notify the local authority of any case of infectious disease which occurs under their control The power to require this notification is given to the municipal authorities by local acts, and was first acquired in 1877 by the corporation of Bolton In the next year the corporations of Nottingham, Burton-on Trent, and Jarrow, received the same power Every year since has added to the list, which comprises sixteen Lancashire towns Last year the corporations of Brighton, Chester, Croydon and Shrewsbury have included the same provision in local acts, so that it now extends to 38 towns, and covers more than one-eighth of the total population outside of London The system works well It is administered by municipal corporations whose members and officials are personally known, and have the confidence of their constituencies It by no means follows even in the most infectious cases, that removal follows notification The local authority acts with due consideration for the feelings of families, and the precautions taken are as valuable for the home in which the outbreak has occurred as for the community The success of the scheme depends entirely on the spirit in which it is carried out In London no one would submit to the interference in his domestic concerns of parish officials, of whom he knew nothing and whose judgment and consideration he could not trust This effective mode of checking the spread of infectious disease must therefore wait for its application to London till there is a municipality to apply it

An event of great importance in the hospital world has taken place in the opening of the Miller Memorial Hospital at Greenwich, by the Lord Mayor Its chief importance lies in its being the first hospital with circular wards in operation in the world Every precaution has been taken in the selection of the medical and surgical staff to make it a good school for students to gain knowledge of their profession, it will thus act as a boon to many who now find the greatest difficulty in getting efficient training in the London hospitals on account of the great number of men attending them

Dr Price, the Welsh Druid, has again made himself conspicuous by his cremationist eccentricities One night he cremated a bull thirteen years old, called Morgan Apis, to which the Druid was peculiarly attached The proceedings lasted nine hours, and the field where the cremation was carried out was crowded with spectators Dr Price some years ago used to attend the annual meetings of the British Medical Association attired in a peculiar dress, supposed to represent the robes worn by the Druids at an early period of English history

Mr Morgan Hughes of the Westminster Hospital, calls attention to the value of cocaine in toothache He used a 10 per cent solution of the hydrochlorate of cocaine in oil of cloves, applied freely by means of cotton wool both to the pulp cavity and to the gums Its application at once stopped the pain, and in extracting the tooth the patient did not feel the application of the forceps until the tooth left the socket Mr Hughes thinks dentists will find it useful in the preparation of cavities prior to filling them

It is stated that there are seventeen quinine factories in the world, six in Germany, two in Italy, three in France, two in England, and four in the United States The annual total production of sulphate of quinine by these seventeen factories is said to be, as nearly as possible, 4,250,000 ounces

Dr Murray Lindsay, the Medical Superintendent of Mickhover Asylum near Derby, was attacked recently by one of the patients with a chisel Three wounds were inflicted, one under the fifth rib being of a somewhat serious nature

Last month an anti-vaccination demonstration of an extraordinary kind was made in London An open hearse with a child's coffin, preceded by a band in a brake playing the dead march in "Saul," followed by a number of vehicles displaying placards, setting forth the object of the demonstrators, passed through the principal streets, attracting great attention

It may not be generally known that the popular word "microbe" is said to have been coined by M Charles Sedillot, of Strassburg, and that it was first used in a paper on M Pasteur's discoveries before the French Academy of Science in 1878 In replying to M Sedillot, M Pasteur used the word twice, after which it was generally adopted by scientific men The *Medical Record*, however, doubts the accuracy of this statement, and says it was not M Sedillot, in 1878, but Prof Pacini who first used it, in 1854, while speaking of a micro organism of cholera

Sir Lyon Playfair will be the President of the British Association at Aberdeen in 1885 This selection of President has given the greatest satisfaction

G O M

PARIS LETTER.

PARIS, Jan 9, 1885

In his thesis for the doctorate, "On the Conditions for Surgical Intervention in the External Localizations of Tuberculosis," Dr Coudray formulates certain rules which the surgeon might attend to with advantage to himself as well as to his patient In a general way, the author states that external tuberculoses necessitate intervention only in such cases as do not present a spontaneous tendency to cure The natural tendency to cure, which is frequent in a certain class of patients, constitutes, on the contrary, the exception with those who frequent the hospitals The formation of secondary foci, consecutive to operations, may be considered a rare circumstance, if not exceptional The doctrine of auto inoculation, according to the same author, is no argument against intervention The rule by which a tuberculous lesion should be removed as soon as it becomes a cause of wasting debility, is, according to Dr Coudray, a dangerous one It seems to him preferable to say that the lesion should be removed *before* it becomes a source of weakness He admits, however, that the indications concerning the nature of the intervention sometimes present the greatest difficulty as regards tuberculous osteo arthrites and certain other forms of osteitis Dr Coudray does not believe in the efficacy of partial operations, particularly near the joints, but, as he states, it is impossible to lay down even general rules on this point, as the surgeon must be guided by circumstances The contra-indications of surgical interference reside in the predominance of the gravity of visceral lesions over the external localizations

The JOURNAL of the 6th instant contains an editorial on, "*The Absence of Free Hydrochloric Acid in Stomachs Dilated from Carcinomatous Stenosis of the Pylorus*" It may be interesting to give here an extract of a paper read before the Medical Society of Hospitals by Dr Dujardin-Beaumetz, on the same subject According to this physician, this sign is of little or no value as a means of diagnosis, as according to his experience he has found that in some cases of cancer of the stomach the gastric juice was acid whilst in other cases where there was no cancer the gastric juice was neutral This of course was verified at the necropsy of the patients

It is well known that certain physiologists, guided by the different results produced by electricity on the dead body and on living animals, have considered faradisation to be one of the best means for distinguishing real from apparent death In a paper by Dr Bochefontaine, which was communicated by Professor Richet to the Academy of Sciences, the author endeavors to overthrow this assertion, and advances the following proof in support of his views He proposes the question an animal being submitted to a faradic current in a limited region, in what conditions would the contact of the fingers with another part of the body produce a shock on the experimenter? Experiments practiced successively on living and on dead animals, have produced variable results, even in the course of the same experiment The author therefore concludes that it would be imprudent to found, on such phenomena as these, a method of establishing the difference between real and apparent death, until some more scientific explanation can be given of this particularity

The doctor was induced to try the above experiment, in order to find out some immediate sign of certain death, instead of having to wait for the setting in of putrefaction, which, up to now, is the only positive sign known by which certain death is distinguishable from apparent death, for during the late cholera epidemic several patients afflicted with the disease were found in that state, and it is to be feared that some were actually buried alive, as those dying from the disease were almost immediately interred, and this is not to be wondered at, as cholera patients have a cadaverous appearance A case in point was reported to have occurred at Genoa, in the person of a Dr Canepa, one of the leading physicians of that town The report states that the doctor was seized with the cholera in the morning, and the disease ran its course so rapidly that in a few hours the patient seemed to have ceased to exist The usual formalities for a funeral were gone through, but on bringing the coffin to his room, he presented himself at the door and inquired in a ghastly tone why he had been left for so long a time without his tea and rum The undertaker and his men were so terrified that they at once disappeared A doctor was immediately called in, and, in consultation with other physicians, practiced the hypodermic injection of water saturated with chloride of sodium (hypodermoclysis, as the Italian physicians term the operation). This is simply an extension of Pacini's recommendation, practiced also by M. Duchaussoy, of Paris, and fully described in the "Report on the results of the different methods of treatment pursued in Epidemic Cholera, addressed to the President of the General Board of Health" (page 13, London 1855). In this report Pacini says: "It is clear that the injection of salt water into the veins produces immediate reaction, but it is easy to see that the said reaction cannot be maintained so long as the intestinal transudation lasts. Every one will admit that the primary cure for a leaking wine barrel is not to keep filling it, but to make it tight; all the more is this the case in the human subject, where the vascular system has the power of refilling itself the moment the overflow ceases. So long as the patient is capable of swallowing astringent and antiseptic drinks, I do not believe the physician is authorized to practice those injections, since, besides being attended with risks, they are not absolutely required until the stage of apparent death; at least, in bodies presumed to be dead which present some return of warmth or some movement. The use of astringent and antiseptic beverages may be resorted to when reanimation manifests itself." The operation, however, of hypodermoclysis practiced on the patient above referred to, proved of no avail, as the unfortunate doctor died soon after; this time, for good. A. B.

DOMESTIC CORRESPONDENCE

NEW YORK LETTER FROM OUR REGULAR CORRESPONDENT.

NEW YORK, Jan. 3, 1885.

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Some have supposed that the offerings made on Hospital Saturday and Sunday would be used as an excuse for reducing or discontinuing subscriptions toward the support of hospitals at other times, and that the total revenue raised for the support of these charitable institutions would therefore be diminished rather than increased in consequence of the work of the Association. It is gratifying to note, however, that the opposite of this has been the case. In addition to the sums collected through the instrumentality of the Association—aggregating nearly $120,000 in amount during the past three years—there has been during the same period an improvement in the income of the hospitals from other sources, indicating that Hospital Sunday has been a stimulant, rather than a detriment, to the general flow of hospital charity. The reports of the Associated Hospitals show that during the past three years $201,650 has been expended on the enlargement of accommodations; that there has been an increase of $9,780 in the income from invested funds; that there has been an increase of $43,036 in the amount received from paying patients (at the same time that the number of free patients has increased from 6,698, in 1881, to 8,509 in 1883), and that the increase of income from contributions towards current expenses, other than those made in connection with the annual Saturday and Sunday collections, amounts to $22,774.

From the last annual statement of the Association, we learn that twenty hospitals now derive their support in part through this channel. The cost of maintaining these institutions last year was $546,380. To meet this outlay there is a regular income to be absolutely depended upon (of invested funds), of only $114,227, while the amount received from paying patients aggregates $131,241. The total number of patients treated last year was 11,409. Of this number 3,872 were free patients, and it was principally to maintain this feature of the work of the hospitals, and, if possible, to increase its scope and efficiency, that the annual collection was instituted. That it has in a considerable degree fulfilled its purpose is conclusively demonstrated by a comparison of statements of different years, such as is given above. It is thus pointed out that an important source of revenue, on which these institutions have in the past depended is likely to fail them this year, and perhaps for the future altogether, amounting in the aggregate to $35,000. At the last session of the legislature an act was passed, the practical operation of which will be, it is said, to appropriate to other uses (the police pension fund), all the moneys hitherto given to eleemosynary institutions of the city of New York, from the funds contributed to the treasury through the board of excise. The Association therefore made an earnest appeal for increased gifts, in order that the hospitals might not be compelled, on account of diminished resources, to restrict their growing work of charity. Last year the Saturday and Sunday collection amounted to nearly $45,000, and this year, to make up for the loss of the excise money and enable these institutions to carry forward their work, on even its present scale, $75,000 would be required. In order to stimulate the clergy in securing contributions from their parishes, it was announced this year that any minister who made a collection in his congregation, should have the right to call upon the general agent of the Association, to visit and secure the admission (if the case is a suitable one) to one of the hospitals of any sick person that he may recommend The Association also announced that it would take care of the sick poor among the trades contributing to the fund

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At the annual meeting of the New York Academy of Medicine, which occurred Jan. 15, Dr. Abraham Jacobi was elected President, Dr. Charles Carroll Lee Vice-President, and Dr. Louis Elsberg Corresponding Secretary. The report of the Library Committee showed that the library of the Academy now contains about 35,000 bound volumes and 9,000 pamphlets. During the past year there have been added to it 1,278 bound volumes, 1,875 pamphlets, and 7,814 medical journals. Five hundred dollars was appropriated for subscriptions to journals for the year 1885.

The paper of the evening, by Dr. W. Gill Wylie, one of the gynæcologists to Bellevue Hospital, was on "Diseases of the Fallopian Tubes and their Relation to Uterine Displacements and the use of Pessaries." In it he expressed the opinion that when the frequency and the great importance of diseases of the tubes is generally understood, the fascinating teaching of the mechanical pathologist, that most of the ills of women are due to uterine displacements, will fade to small proportions, and the relatively few lines now to be found in our text-books on salpingitis will increase rapidly, while there will not be so many hundred pages on cellulitis, displacements, and pessaries. He believes that salpingitis is nearly always caused by the extension of disease from the endometrium to the lining membrane of the tubes. The first effect of disease reaching a tube is to cause it to become engorged with blood. As it is loosely attached to the upper border of the broad ligament, it sinks lower in the pelvis, covering or folding over the ovary, and as the beginning of salpingitis, after labor or abortion, is often associated with an enlarged uterus, this organ sinks lower, while as the patient during the acute stage, is, as a rule, on her back, the fundus inclines backward. As soon as the discharge or the disease reaches the peritonæum, through the open end of the tube, the peritonæum becomes inflamed and lymph is thrown out, gluing the different organs together. As the acute stage subsides, the lymph contracts, bands of adhesion draw and distort the organs, and the folded, twisted and adherent broad ligament holds the uterus in its backward displacement. Repeated attacks are liable to occur, increasing the contractions and adhesions, and it is the rolled up ligaments and the tubes which fix the uterus backward; while it is the imbedded ovary and diseased tube in the hardened tissues of the broad ligament, which makes it next to impossible to insert a pessary and hold the uterus up without causing pain and running the risk of bursting or tearing a tube distended with septic or irritating fluid. When diseased tubes are plainly made out, and the patient is bedridden, or suffers to such an extent that after being clearly informed as to the effect and danger of the operation, she consents, Dr. Wylie considers complete removal of both tubes and ovaries, if both sides are affected, to be justifiable. He has now operated in fourteen cases, with the result of twelve recoveries and two deaths.

It will probably take a smaller mortality than that of one in seven to convince the mass of the profession that this operation is, as a rule, justifiable in the class of cases described by Dr. Wylie, where chronic invalidism is the worst that usually befalls the patient. It is true that in a few exceptional cases the bursting of a distended tube may result in general peritonitis, but even after peritonitis has set in the patients may sometimes be saved, as he himself points out, by a bold surgical interference. As a rule, therefore, it would seem to be better to defer the performance of laparotomy until after the occurrence of this possible accident. As regards ovarian cyst, the case is very different. Here the ordinary tendency of the disease is towards a fatal termination, and hence the operation would be entirely justifiable, even were the mortality vastly greater than it is. That Dr. Wylie was inclined to resort too frequently to laparotomy, seemed to be the general opinion of the speakers who took part in the discussion of the paper, among whom were such distinguished gynæcologists as Dr. Noeggerath, Dr. A. J. C. Skeene, of Brooklyn, and Dr. P. F. Mundé, editor of the *American Journal of Obstetrics*. Dr. Mundé spoke particularly of the great difficulty of diagnosis that was usually met with; but Dr. Wylie remarked in closing the discussion that since he had adopted his present plan of preparatory treatment he had found very little trouble in this respect. This consisted principally in applications for the purpose of softening the tissues, of glycerine and alum two or three times a week for a period of six weeks to six months, with an examination under ether at the end of that time in a considerable number of instances.

On the 18th of January, at the annual meeting of the Hospital Saturday and Sunday Association, it was reported that the collections for the hospitals this season had, up to that time, amounted to $30,988.90, and that the total, when all the money was handed in, would be at least $36,000. Last winter there was collected $43,062.74. It was stated that notwithstanding the business depression, the various trade auxiliary associations had done better than ever before; but that the churches had not contributed as liberally as last year, probably for the reason that on Hospital Sunday the weather was stormy.

Mr. Henry Lamb, of Rochester, N. Y., has offered through the American Public Health Association, the sum of $2,800 to be awarded in first prizes of $500 and second prizes of $200 for papers on the following subjects:

(1) Healthy homes and foods for the working classes.

(2) The sanitary conditions and necessities of school houses and school life.

(3) Disinfection and individual prophylaxis against infectious disease

(4) The preventable causes of disease, injury, and death in American manufactories and workshops, and the best means and appliances for preventing and avoiding them

All essays in competition for these prizes must be in the hands of the secretary, Dr Irving A Watson, of Concord, N H, on or before October 15, 1885, and the awards will be announced at the next meeting of the Association, in the second week of December, at Washington

Dr Fordyce Barker, the family physician of Gen Grant, is reported to have recently given the following account of his condition "Gen Grant's health has improved very much during the past few weeks, and the swelling in his mouth, which a few weeks ago made it difficult for him to talk or eat, has subsided in a great measure Some eight or ten weeks ago he was suffering from a swelling, accompanied by great pain, in the back of the tongue, and I called in Dr J H Douglas for the purpose of applying local treatment The General's smoking, in which he had been accustomed to indulge all his life to excess, seemed to irritate the tongue, although he was not conscious of its affecting his general system We therefore advised him to cut down his smoking to the first half of three cigars a day, as we thought it probable that it was the nicotine which accumulated in the last half of the cigar that produced the irritation He followed this advice for perhaps a week, and then gave up smoking entirely, apparently without the least disturbance to his nervous system, loss of sleep, or other unpleasant effect whatever This was remarkable, as he had been smoking from twelve to fifteen cigars a day The improvement in his condition since then is marvelous Under treatment by muriate of cocaine not only has the pain been greatly diminished, but the capillary congestion of the tissues has in a large measure disappeared " Dr Douglas intimated that the trouble in the tongue was of an epitheliomatous character P B P

MALIGNANT PUSTULES.

Sedalia, Mo, Jan 20, 1885

Dear Journal —In your issue of 17th inst, I notice a communication from Dr Leech, Jefferson Medical College, relating to ulcers of fingers While I do not approve of charging everything of this nature to syphilitic virus, it would certainly appear that in the cases cited there must have been some specific poison, as the ophthalmitis of the infant would clearly show The character of the ulceration, also, in my mind, would suggest animal poison Our literature upon the subject of localized pustulations is fearfully meagre, so far as causation is concerned Having just had a patient suffering in like manner, I was fearful of grave results No cause could be attributed for the local trouble I was treating the patient for a neurosis The general health was good The disease first manifested itself as a small blood-blister, about as large as a split pea, on the metacarpal phalange of the middle finger, right hand The suppuration extended to the bone The swelling involved the whole hand, and the general health was in consequence very much impaired I have met with several instances of this kind within the last few years, and have suffered some three attacks myself, all on the right hand These ulcers, to my mind, take on the form of braxy or malignant pustule, more than anything else I will say, for the benefit of the doctor, that I now take the precaution to cauterize all abrasions about the hand before making digital examinations or having anything to do with surgical cases, and especially suppurating surfaces Yours truly, Jno W Trader

RHINOLITH.

Louisville, Ky

My attention was called to the above subject by an article in a late medical journal It recalled to my mind a case I had three years ago, in the person of a young gentleman 21 years of age, who had been suffering from nasal catarrh since quite young Had been under the treatment, in the meantime, of many physicians for this affection The young man was scrofulous in appearance On making a careful examination of his nose, discovered well up in one nares a foreign body It was easily reached by a pair of forceps and removed without difficulty, with some pain, followed by slight bleeding The foreign body was about half an inch in diameter and flat, rather dish-shaped, or the shape of a large pearl button The surface was rough like a mulberry On sawing through the body it proved to be a rhinolith with an old-fashioned iron button, such as are used on the seats and backs of chairs and sofas, as a nucleus The cross section presented very much the appearance of a renal calculus Any history as to the length of time it had been there could not be gotten He suffered no more from nasal catarrh after the removal of the rhinolith W H Cheatham

Lecturer on Diseases of Eye, Ear, Throat and Nose,
University of Louisville

BOOK REVIEWS

Transactions of the Medical Society of the State of New York, for the Year 1884 Cloth, 521 pages with appendix

A large part of the time of the Society was occupied in the discussion of the Code of Ethics The following are quotations from the anniversary address, "The Reciprocal Attitude of the Medical Profession and the Community," by Alexander Hutchins, A M, M D "There is a medical science, but if medicine were a science only, there would be fewer medical schools than now exist " "The genius of true scholarship the wide world over, is the search for truth and its free gift to mankind " "Whether the time is ripe to hang a man on microscopic evidence, or whether the time will ever come when the special vibrio of the assassin shall be diagnosticated from the spine of the burglar and the zoon of the concupiscent, are not questions angrily struggling for a reply " "The gifts of the degree are lavish The restrictive barriers are so loosely set up, and the final tests of fitness so daintily applied, that the former are cast down as easily as the latter is overcome " "The end of all medical learning is to make sick people well, to assuage the discomforts of the incurable and to promote the euthanasia " "No man has an inalienable right to practice medicine He can choose to do so, but the public may adjust the tests of his fitness " These quotations illustrate a few of the points considered in this eloquent and interesting address

The body of the report is made up of twenty-five papers, any one of which is worthy of critical attention, but time or space will not permit a full review, and so we will print a few of the most striking if not the most important points

Dr Arpad G Genter recommends Newber's methods of Canalization Shallow canalization for draining cavities beneath large skin-flaps consists in punching elliptical holes about $^1/_4$ in x $^2/_5$ in through the most dependent part of the flap Deep canalization as in wounds of the neck or axilla, consists in turning the skin-flaps into the bottom of the wound and securing them there by sutures The success of both methods in obtaining immediate union are reported as good

Dr Edward H Parker, as a result of observation and experience, estimates the cost of hospitals in small cities at $200 per bed

Dr A Jacobi recommends arsenic and digitalis in phthisis The former in doses of $^1/_{15}$ to $^1/_6$ gr per day, apparently as an alterative, and the latter in sufficient amount to act as a cardiac stimulant He has found arsenic particularly useful in the first stages of the disease Dr Drake in discussing the paper says that he has found it most useful in the latter stages The reader is at liberty to draw his own conclusion, to us it would appear that the drug in the dose given, chiefly acted on the digestive apparatus and was thus applicable to this or any other disease in which general mal-nutrition is an important factor

A New Method of Partial Extirpation of the Cancerous Uterus, by Dr Ely Van De Warker This consists of combined excision and cauterization with chloride of zinc

Dr John O Roe makes extensive reports of cases of hay fever radically cured by the removal or destruction *in situ* of irritable portions of the nasal mucous membrane

Dr Geo B Fowler called the attention of the society to the dangers of poisoning by potassium chlorate

Dr David Little, in speaking on the prophylaxis of summer complaint of infants recommends that overfeeding be avoided In illustration of the success of method he states "For twenty-one years I have been physician to the Rochester Orphan Asylum Each of these years had witnessed deaths from enteric disease until 1882 In the early summer of that year I said to the matron, 'Feed your babies but once in three hours during the day, but give them water to drink as often as they will take it' The matron carried out the instructions to the letter as she understood them, and fed them three times a day The following summer the original plan was carried out, the children being given a meal at night if water would not quiet them There were but two deaths, and these were children who were accidentally kept at the bottle all night

The Committee on Hygiene reported on the following subjects Mortality Tables and Epidemic Influences, Dr Janeway, Hygiene of the Ear, Dr Pomeroy, Sewer Gases, Dr Smith, High Houses, Dr Vanderpoel

Among others we note the deaths of George Burr, M D, and John Foster Jenkins, A M, M D C E W

A HANDBOOK OF THE DISEASES OF THE EYE AND THEIR TREATMENT By HENRY R SWANZY, A M, M B, F R C S G Cloth, 437 pages Illustrated New York D Appleton & Co

This book is designed by the author as a handbook for the use of students of ophthalmology It is condensed in style and broad in scope, covering all departments of the subject Its chief use to the practitioner will be as a book of ready reference when memory fails him in some matter of diagnosis or treatment The chapter on the eyelids treats of the various plastic operations for the relief of the distortions of these organs In chapter xiv the motions of the pupil in health and disease are considered Myosis may be caused by a diseased process irritating the pupil-contracting centre or fibres, or by one causing paralysis of the pupil-dilating centre or fibres, or by a combination of both The reverse of this irritation or paralysis, or both, would give rise to mydriasis

The following is a brief abstract from the portion of this chapter which refers to the value of the pupil in diagnosis

Irritation myosis is found in *a* The early stages of inflammatory affections of the brain and its meninges *b* In cerebral apoplexy, thus differentiating from embolism *c* Inter-cranial tumors at the origin of the third nerve or in its course *d* At beginning of attack of hysteria or epilepsy *e* In tobacco amblyopia *f* As result of long maintained effort of accommodation, as in certain trades *g* As a reflex action in ciliary neurosis

Paralytic myosis occurs in spinal lesions above the dorsal vertebræ, as in injuries and chronic forms of inflammation

Irritation mydriasis occurs *a* In hyperæmia of the cervical portion of the spinal cord, and in spinal meningitis *b* In new growths in the cervical portion of the cord *c* In cases of tumors and other causes of high intercranial pressure *d* In spinal irritation of chlorosis or anæmia *e* In intestinal irritation from worms or other causes *f* In psychical excitement, may be unilateral

Paralytic mydriasis may be due either to a paralysis of the pupil-contracting centre, or as the result of the stimulus not being conducted from the retinæ to that centre The former may be found *a* Sometimes in progressive paralysis where at first there was myosis *b* In various diseased processes at the base of the brain affecting the third nerve *c* In a later stage of thrombosis of the cavernous sinus *d* In orbital pressure on the ciliary nerves *e* In glaucoma *f* In cases of intraocular tumors In cases where the cause is simple failure in the transmission of the stimulus from the retina, contraction of the pupil will take place on convergence of the visual line

In illustration of the test for color blindness there is appended to the book a sample card of the various worsteds used in the test C E W

Lectures on Some Important Points Connected with the Surgery of the Urinary Organs By Sir Henry Thompson, F R C S, M B, Lond Philadelphia P Blakiston & Son Pp 147

This work is issued in the cheap students' form (cloth or paper) and is uniform with former volumes by the same writer Included in this volume we find (Chap III) the essay on "Tumors of the Bladder," and digital exploration of that organ This includes all that was found in the little book, "Tumors of the Bladder," with the exception of the colored plates, which were of slight importance

The remainder of the chapters are supplementary to what he has repeatedly published In the discussion of improved lithotrity full credit is given to American surgeons for modern improvements, but exception is taken to Bigelow's introduction of the word "litholopaxy" as unnecessary The author asserts that the increased size of Bigelow's instruments is objectionable, while admitting that "Bigelow's achievement has been to demonstrate that crushing a stone, even if large, and removing all the fragments from the bladder at one sitting, is a safer proceeding than dividing the work between two, three or more sittings," p 119

In objecting to large lithotrites and evacuators, Sir Henry really shows that he has not yet thoroughly grasped the vital point in the American method, namely, the use of vastly larger and more powerful tubes and crushing instruments

Bigelow's lithotrite compares with Thompson's in point of efficiency for *any* stone about as the rifled gun compares with the smooth-bore

This instrument, however, fails to appear among the cuts given of "improved" lithotrites, p 123–124, and even the one designated, "Fenestrated Lithotrite, very powerful" (Fig 22), is far inferior to the new American instrument, for it lacks the long beak which is so useful in holding the membranes away from the jaws This is ignorance or something worse—bigotry

A man claiming the position of world-known specialist and authority, is bound to give more faithful information than this when he attempts to impart instruction Clearly his business was to have known the fact that Bigelow's apparatus has completely superseded his own, and if he has not already purchased and tested the instruments he should do so at once

On page 120 we find

"We must recognize the importance of not inflicting any needless injury on the urethra and bladder, and should therefore always select the smallest lithotrites and evacuators which possess the strength and capability adequate to crush and remove the individual calculus to be dealt with "

Now, experience enough has been had on this side of the water to prove beyond cavil that the largest instruments are the ones which cause least injury even on very small or soft calculi, because, having once seized the stone, they annihilate it, often, with a single movement of the broad jaws, and thus with far less manipulation than in the smaller lithotrites As to distending the urethra, *quid interest?* The urethra is not diseased It is the inflamed and irritable bladder we wish to spare all possible contusion, and this we accomplish by using the largest possible instruments which the urethra will admit Moreover, clinical experience has shown the use of Bigelow's large tubes and instruments to be harmless, all of which Sir Henry Thompson could have known, had he chosen to avail himself of the abundant facts now before the public E W A.

Transactions of the New Hampshire Medical Society at its Ninety-fourth Annual Session, 1884 Paper, 213 pages

From among the various interesting papers we abstract the following, from "Respiratory Irrigation in the Treatment of Empyema," by E S Berry, M D The author considers that the steps in the treatment of empyema are these Aspiration, free drainage and frequent washing out of cavity, Listerism, suction to the compressed lung The plan of treatment was suggested by C McIvor Goyder, Esq, in the *Lancet* of March, 1881 The patient was a previously healthy boy, ten years of age After three months' sickness, with fever and pain in side, etc, an opening was made in the sixth interspace on a line with the axilla A tube was passed into the opening This, after leaving the chest, passed through a rubber disc, about five inches in diameter, which fitted close to the chest-wall and held the tube in place Over this a rubber bandage encircled the chest This tube passed through the clothing and under a solution of salicylic acid, which was placed in the patient's pocket Whenever the bottle was changed a stop cock in the tube was closed It will be seen, by a study of the physics of this apparatus, that while it is convenient and clean, it fully meets the indications for treatment above enumerated The respiratory movements effect a circulation between the cavity of the chest and the bottle, while the vertical height of the fluid column in the tube determines the amount of suction on the lung On raising the bottle the fluid will flow into the chest, and thus the cavity can be washed In the case reported recovery was rapid

C E W

The Laws of Health Physiology, Hygiene, Stimulants, Narcotics By Joseph C Hutchinson, M D, LL D Cloth, 223 pages Illustrated

This elementary work greatly resembles the other text-book by the same author which was noticed recently in this journal

HISTORY OF THE DISCOVERY OF THE CIRCULATION OF THE BLOOD By HENRY C CHAPMAN, M D Philadelphia P Blakiston, Son & Co Cloth, 56 pages, price $1

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ORIGINAL ARTICLES

NEW REMEDIES

BY J CHRIS LANGE, M D , PITTSBURGH, PA

Read before the Mott Medical Club, of Pittsburg, Jan 28 1885

MR PRESIDENT AND GENTLEMEN —In order that the scope of this paper may be understood at the outset, it is necessary to state to what preparations and productions the name, New Remedies, is therein applied , and, also, that the paper is limited to a desultory consideration of the popularity, in the profession, of new remedies, of the foundation of this popularity, and of some conclusions that may be adduced from it

The class of therapeutical agents to be herein considered in the limited aspect which has been indicated, embraces, under the generic name of New Remedies, all preparations and productions not officinal in the United States nor foreign pharmacopœias, with the single exception of that very limited number of such agents which have been proven, beyond reasonable doubt, to possess the qualities attributed to them , this proof being founded upon evidence furnished by an extended clinical experience, at various hands, irrespective of and uninfluenced by the results of theoretical speculations, of chemical or microscopical researches, and of experiments on animals

That the therapeutical agents entitled New Remedies, are popular in the profession, and that their popularity is on the increase, cannot be truthfully denied An inspection of the cases and shelves of any apothecary will show an accumulation of them which is a demonstration of their demand by the profession The flourishing condition of the numerous establishments devoted to their preparation and production, is, also, proof that they are popular The magnitude of these establishments, and the magnitude of their correspondence and transactions, as compared to those which limit themselves to the preparation and production of officinal remedies, is evidence determining the same conclusion If further argument be needed to establish the existence of this popularity in the profession, it may be cited, as additional evidence in proof, that this popularity is very well appreciated and employed, inasmuch as two medical journals are published and circulated in this country, under the popular title of New Remedies, one of which, perhaps both of which, enjoy a large and ready sale

When it is asked upon what this popularity is founded, in other words, upon what grounds the extensive employment of new remedies, by the profession rests, no sophistry can obscure the answer, if the question be lucidly considered The answer is arrived at as inevitably as reluctantly , the answer is not a flattering one to the profession An endeavor to discover good and sufficient reason for the existent employment of these remedies, is a natural and laudable one , but it is a fruitless one, also It is proper to inquire, then, What is a good and sufficient reason for the exhibition of any therapeutical agent in any case of disease? The answer to this is, A clear indication, founded upon the results of clinical experience This is the unalterable law All time can only disseminate its wisdom , it can never overthrow it Every result of the most elaborate studies and experiments, which shall be made by ways and means and appliances of which we have, as yet, no conception, all that all time may do, must be submitted to that infallible standard of judgment, clinical experience, and must be proven there, before it is accepted This is the law, and must be always Let this law be applied to the employment of the remedies under discussion, in the treatment of disease Is this law observed in the treatment of disease by the exhibition of new remedies? The answer must be, No , it is not They are not employed, then, in consonance with the indications furnished by clinical experience? They are not employed, because of the only good and sufficient reason, that their effects are known and desired? And again the answer must be, No , they are not

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Amendments to the Constitution, by Dr C H Von Klein, Ohio 1 No person who shall hereafter graduate from a medical college where literary education is not a prerequisite to such graduation, shall be eligible to be a delegate to the American Medical Association

2 All delegates to this Association, as a part of their credentials, shall present certificates from the County, District or State Associations they represent, showing from what medical college and when graduated, but this provision shall not apply to delegates from the Army and Navy

Amendments to By-Laws, by Dr Foster Pratt, Mich Each Section shall nominate its Chairman and Secretary—all other nominations to be made as now, by the nominating committee

By Dr Carl Seiler, Penna Divide the Section on Ophthalmology, etc, and form two, one consisting of Ophthalmology alone, and one consisting of Otology, Laryngology and Rhinology

Wm B Atkinson, M D
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☞ A member desiring to read a paper before the Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements at least one month before the meeting —*By-Laws*

Committee of Arrangements —Dr Samuel D Logan, New Orleans, La, Chairman

Amendments to the Constitution, by Dr C H Von Klein, Ohio 1 No person who shall hereafter graduate from a medical college where literary education is not a prerequisite to such graduation, shall be eligible to be a delegate to the American Medical Association

2 All delegates to this Association, as a part of their credentials, shall present certificates from the County, District or State Associations they represent, showing from what medical college and when graduated, but this provision shall not apply to delegates from the Army and Navy

Amendments to By-Laws, by Dr Foster Pratt, Mich Each Section shall nominate its Chairman and Secretary—all other nominations to be made as now, by the nominating committee

By Dr Carl Seiler, Penna Divide the Section on Ophthalmology, etc, and form two, one consisting of Ophthalmology alone, and one consisting of Otology, Laryngology and Rhinology

WM B ATKINSON, M D
Permanent Secretary

—THE—

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

VOL IV | CHICAGO, FEBRUARY 14, 1885 | NO 7

ORIGINAL ARTICLES

NEW REMEDIES

BY J CHRIS LANGE, M D , PITTSBURGH, PA

Read before the Mott Medical Club, of Pittsburg, Jan 28 1885

MR PRESIDENT AND GENTLEMEN —In order that the scope of this paper may be understood at the outset, it is necessary to state to what preparations and productions the name, New Remedies, is therein applied, and, also, that the paper is limited to a desultory consideration of the popularity, in the profession, of new remedies, of the foundation of this popularity, and of some conclusions that may be adduced from it

The class of therapeutical agents to be herein considered in the limited aspect which has been indicated, embraces, under the generic name of New Remedies, all preparations and productions not officinal in the United States nor foreign pharmacopœias, with the single exception of that very limited number of such agents which have been proven, beyond reasonable doubt, to possess the qualities attributed to them, this proof being founded upon evidence furnished by an extended clinical experience, at various hands, irrespective of and uninfluenced by the results of theoretical speculations, of chemical or microscopical researches, and of experiments on animals

That the therapeutical agents entitled New Remedies, are popular in the profession, and that their popularity is on the increase, cannot be truthfully denied An inspection of the cases and shelves of any apothecary will show an accumulation of them which is a demonstration of their demand by the profession The flourishing condition of the numerous establishments devoted to their preparation and production, is, also, proof that they are popular The magnitude of these establishments, and the magnitude of their correspondence and transactions, as compared to those which limit themselves to the preparation and production of officinal remedies, is evidence determining the same conclusion If further argument be needed to establish the existence of this popularity in the profession, it may be cited, as additional evidence in proof, that this popularity is very well appreciated and employed, inasmuch as two medical journals are published and circulated in this country, under the popular title of New Remedies, one of which, perhaps both of which, enjoy a large and ready sale

When it is asked upon what this popularity is founded, in other words, upon what grounds the extensive employment of new remedies, by the profession rests, no sophistry can obscure the answer, if the question be lucidly considered The answer is arrived at as inevitably as reluctantly, the answer is not a flattering one to the profession An endeavor to discover good and sufficient reason for the existent employment of these remedies, is a natural and laudable one, but it is a fruitless one, also It is proper to inquire, then, What is a good and sufficient reason for the exhibition of any therapeutical agent in any case of disease? The answer to this is, A clear indication, founded upon *the results of clinical* experience This is the unalterable law All time can only disseminate its wisdom, it can never overthrow it Every result of the most elaborate *studies and* experiments, which shall be made by ways and means and appliances of which we have, as yet, no conception, all that all time may do, *must be* submitted to that infallible standard *of judgment*, clinical experience, and must be proven there, before it is accepted This is the law, and must be always *Let this law be applied to the employment of the remedies under discussion, in the treatment of* disease Is this law observed in the treatment of disease by the exhibition of new remedies? The answer must be, No, it is not They are not employed, then, in consonance with the indications furnished by clinical experience? They are not employed, because of the only good and sufficient reason, that their effects are known and desired? And again the answer must be, No, they are not

It is obvious that opponents of this conclusion are many and great They are active and energetic also, their cry, Progress—Original Observation, is heard and applauded throughout the land But it is affrighting and dismaying to the true lover of his profession He appreciates the power of zeal He recognizes the contagion of enthusiasm He has witnessed the large following of more than one brilliant illusion He is aware that brilliancy, enthusiasm, and zeal are more often effective of evil to science, than of good to it, that these qualities more often serve to retard, than to further its progress, and that their results, when weighed in the balance of truth, are thrown in air,—a nothing, by the accumulated evidence of centuries

As a pertinent illustration of this reference may be made to the *furor* created in this country and extended throughout the world, some ten years since, by the radicalism—the positivism—of deluded members of the profession with the cancer-plant, cundurango. And again, how this experience was repeated when the profession was informed, from England, of the curative properties, in cancer, of chian turpentine. With such apparently decisive evidence were these fallacies promulgated throughout the world, that they were received with credence, were largely adopted, and were allowed to displace well-tried, well-proven, and well established treatment. The pain, the misery, the hopes revived to be but crushed again, the loss of life,—all must be ascribed to the brilliancy, enthusiasm and zeal of the promulgators of the delusions referred to.

But the truth of the proposition herein submitted, that new remedies are extensively employed by the profession, irrespective of the results of clinical experience, or without the existence of any results of clinical experience regarding their employment, will be denied. The proposition will be assailed by those who employ these agents, because it implies that their employment rests upon insufficient grounds, or in other words, if the gravity and responsibility of the matter be considered as influencing life and health, that it is unjustifiable. It becomes necessary, therefore, to examine the grounds upon which the use of new remedies rests. An endeavor to ascertain these is met, first, by a mass of evidence from medical practitioners of all grades. In it the certificate of utility, excellence, or specific virtue, obtained from an obscure "swamp doctor," is printed side by side with that of the eminent practitioner of a metropolis, and that of the learned college professor. The unanimity of conviction of the excellence of such a remedy, expressed and advertised from many and such varied sources, is a cause of, and is seized upon in justification of, its employment. The office of the physician is, to day, flooded with such evidence. It embraces favorable and commending notices, from the before-mentioned sources, of remedies for every class of diseases, and for every disease—from a table water to a specific for syphilis. It is furnished in circulars, letters, treatises, and in the advertising columns of medical journals. Who so assiduously supplies this evidence? The flourishing manufacturers and producers of the remedies. What is the motive in the expensive manufacture and circulation of this evidence? It is to persuade the profession to employ the remedies, and thus to create a consumption, or sale, for them. The more evidence the producers can offer, and the more convincing they can make it, the greater will be the sale of their products. This evidence, under the name of clinical experience, convinces members of the profession of the utility, excellence, or specific virtues of these remedies. The motives of these manufacturers are venal only. Irrespective of any good or bad qualities their remedies may possess, the success of these producers in disposing of their wares, depends entirely upon their ability to create and disseminate such evidence. The evident prosperity of these producers is a reflection, in all aspects, upon the profession, their success is a detriment to it, it is also a demonstration of a credulity in the profession, deserving the qualification superstitious. The ways and means the producers employ to create the evidence upon which their prosperity is founded, it is not within the province of this paper to consider.

This evidence which, by its creators and promulgators, is made to appear to be the result of clinical experience, if considered with the deliberation a medical education should breed and the practice of medicine should foster, will appear at its intrinsic value. It is characterized by a bias, by an evident pre-determination to find, in the remedy commended, those qualities which are attributed to it, or those effects which it is desirable should follow its administration. This bias is pronounced by the absence of all consideration of the natural course of disease. This evidence is characterized by bold assertions which defy contradiction, or by speculative insinuations which seem to fear it, both of which are antagonistic to very well established laws of disease. This evidence lacks all circumspection, and all discrimination of such events natural to disease, from such others as may be properly ascribed to a remedy. This evidence ignores the laws of disease, or makes these laws appear inoperative in the presence of a remedy. Further, this evidence is characterized by a spirit of surprise at the magnitude of the beneficial results and effects of remedies, by a spirit of superlativism in the consideration of the superiority ascribed to remedies, and by a spirit of the importance of making known, as rapidly and as emphatically as is possible, such effects and results. This tumultuous spirit desires no confirmations of observation or inference, it does not admit the possibility of erroneous conclusions, and it debars all cavil and all doubt. A spirit totally at variance with that which pervades true scientific observation. Again, this evidence is characterized by a wonderful rapidity of growth: two years ago a certain new remedy was thrust upon the profession, which, simultaneously with its appearance, was commended by the evidence, characterized as above, and dated at points from New York to California, of fifty-eight practitioners, of whom one is a medical author, and of whom three occupy chairs in medical colleges. Not long before, a new remedy was introduced by the evidence, characterized as above, of its utility and excellence, this evidence was obtained from—among many others—thirteen representatives of medical colleges. Again, this evidence is characterized by a perversion of rationality. The following is an instance of this. A physician relates the cure of three women of "sterility." He relates, then, how these women, before their cure, *i. e.*, while they were "sterile," repeatedly aborted in early pregnancy, how they were cured of this habit by the specific administered for the purpose, and concludes by saying, "It may be objected that I used iodoform and iron in these cases, but this was only done on account of their anæmic condition, and to restore lost vigor." Another reports, "Mrs. P., abscess of left lung, usual symptoms." Gave the new specific. "After two days she raised about a pint of greenish-yellow pus Continued medicine six days, lung troubles all removed "

These characteristics are prominent and abundant throughout this evidence Can it then, by the greatest strain upon leniency and courtesy, be dignified by the title, clinical experience? The answer, compelled by its consideration is, Most certainly not It demonstrates the lack of that conservatism which is essential to endow clinical observation with value It demonstrates the lack of many other qualities and requirements, also essential to clinical observation, which it is not within the province of this paper to designate and comment upon

Other ground for the existent extensive employment of new remedies is formed by what has been called, elegant pharmacy It is, beyond a doubt, of prominent importance to the welfare of medical science, that palatable and well-looking preparations be dispensed to the public A considerable portion of the public has been alienated from regular medicine by the nauseating and ill-looking preparations sometimes administered to it, this is likely to happen when ailments are considered to be of little gravity, on which occasions irregular and illegitimate systems of practice are, for the avoidance of unpleasant doses, preferred and patronized To have palatable, well looking, neatly labeled and packed preparations dispensed, is a desideratum deserving of great estimation Although a matter of much importance, it was neglected by the pharmacists throughout the country The value of this art was appreciated, however, by the manufacturing chemists, cultivated by them, this field has borne good fruit As illustrative of this, the elixir, which, to a great extent, has displaced the tincture, is an example So popular has it become, and so deserving is it, that it has been admitted to the United States pharmacopœa Another example of the progress of this art, is the coating of pills, which is a perfection of utility and elegance In so far as these and similar desirable changes go, the profession is indebted to the manufacturing chemists But their endeavors have been productive also of much evil And this evil it is which forms another ground upon which the results of clinical experience are ignored in the employment of new remedies

This evil presents itself in the endeavor, by manufacturing chemists, to force upon the profession the use of certain elegant new remedies, which consist of combinations of well known agents, with published formulæ, in agreeable vehicles and fine dresses, and under delusive and ridiculous names The forcing process employed is the abundant circulation of medical evidence testifying to their utility, excellence, and specific virtues, which evidence is accepted by those in the profession who use these remedies, as clinical experience These "happy combinations" are condemned by scientific medicine because they originate in the chemist's laboratory and not from the clinician's observations To attach particular value to them, is to believe that the physician is incompetent, or is less competent than the chemist, to combine and prescribe remedies for disease,—a palpable absurdity They are condemned by scientific medicine, also, because its practice requires—among other things—an adaptation of therapeutical agents to individual cases of disease, and because its spirit wisely denies that a certain remedy, or a certain combination of remedies, is always indicated in a certain disease

The profession is justly indebted to a chemist who will make a remedy agreeable to sight, taste and smell,—an ability a chemist may possess and a physician may lack, but when the profession allows itself to be persuaded by a chemist that his combination of remedies, by reason of its special therapeutical properties, is preferable to a combination the experience of the profession might dictate, then the profession deserts scientific medicine Its practice rests upon no such unstable foundation Its intelligence instinctively abhors gratuitous speculations, and rejects all conclusions not supported upon clinical evidence Its discipline is enforced by knowledge which debars experiment Its foundation is the principles its practice has established The employment of the remedies created in the laboratory, and in the study, is antagonistic to the spirit of scientific medicine The evidence as to utility, excellence, and specific virtues, characterized as above stated, and coming from those who employ these remedies, is worthless to scientific medicine, and is not entitled to rank as the result of clinical experience It is promulgated with a venal—a commercial motive, only Contrast the manner of the spread of this evidence with the manner of the spread of that of an agent deserving consideration, for example, muriate of cocaine—new, also, for its present use How is such evidence spread world wide? This requires no capital, no advertisement, no reams of certificates, no polite emissaries to stock a doctor's office with samples Such evidence is promulgated alone by that glorious and beneficent characteristic of our profession, humanity!

But this extensive employment of new remedies by the profession has other causes, causes which underlie and determine the activity of those which have been considered There exists in a moiety of the profession a controlling desire to accomplish impossibilities This desire is generated, most certainly, by laudable and commendable instincts and motives but it is nevertheless unreasonable, and, unless held in subjection by scientific knowledge, will lead to much evil It is the desire which prompts attempts to accomplish what, in the great majority of diseases, is impossible the abortion of disease, or the limitation, as regards time, of the course of disease The possession of this desire, unguarded by a familiarity with, and regulation by the natural course of disease, is a most unfortunate one The attempts to control disease by potential agents, irrespective of its natural course, constantly afflict the possessor of this desire with the disappointments and vexations of failure His not less earnest because mistaken course, is thus beset with unpleasant experiences, which are substituted for the satisfaction and pleasure which should cheer the physician as he daily observes the expected and interesting course of diseases and their intrinsic tendency to recovery A physician who, in the hope of achieving abortive effects upon disease by the exhibition of potential agents, habitually interferes with the normal course of disease, will not grow and gather the reliable and valuable experience which he would accumulate were he to content himself with observing, and when necessary directing, the course of disease The constant failure of his therapeusis will result in his underestimate of potential agents The confusion of his clinical experience will obscure his perception of the arrival of events in disease, which imperatively demand decisive treatment This desire breeds, also, a perversion of intellect, which diverts even the possession of skill and positive knowledge from its proper use The practitioner who overestimates the importance of new remedies, is very apt to underestimate that of well established ones This aberration is visible in the eager expectancy with which he studies and employs new remedies, in the exultation with which he notes beneficial changes, in the certainty with which he ascribes these changes to his remedy, and in his discovery of the evanescent fallacies, which leave him helpless in painful uncertainty, eager to seize and ready to rely upon the next deception which chance may bring to his notice As illustrative of this, the following occurrence is pertinent A medical practitioner of this city, seized by an acute inflammatory affection, presented an abnormally high temperature His physician, with the additional stimulus of friendship and fraternity in medicine, devotedly exerted himself to render the best possible service Heedless of the existence of well established agents to effect the desirable reduction of temperature, he employed for this purpose a new remedy highly commended for its antithermic qualities, an alkaloid built up synthetically in the laboratory of the chemist With the best intentions he persisted in its use, without any effect, until his patient's condition became extremely alarming and additional advice was solicited, which, by means of the previously despised, well-established antipyretics, rescued his patient from impending death

The possession of this desire and the uncertain state of mind, as regards remedial agents, produced by exercise of this desire, in conjunction with the unfortunate results of treatment which must follow, will compel—it might almost be said—a practitioner constantly to employ new remedies, when the printed evidence of their utility, excellence, and specific virtue constantly surrounds him Exemplifications of this picture are numerous, and from them may be learned how the cry, Progress, unknown to its utterers, but in reality, may mean retrogression

Nothing contained in this paper is intended to support or excuse fogyism, or to depreciate the value of the results of original observations of new remedies if these be attained in proper and reliable,—*i e*, scientific—manner, and by those possessing the necessary acquirements and opportunities to make and record them So qualified, the observation of the effects of new remedies will result in a class of evidence, very different from that now at our service The limits of this paper forbid a consideration of the requirements of such scientific observation, as well as that of a subject of equal, if not of greater, importance and interest, namely, the continued study of the natural history of diseases, together with the modifications of the natural course of diseases, which may be effected by the exhibition of well established therapeutical agents This latter subject is, to the practitioner, of vastly more importance than the former, and will repay him richly for all the time and pains he may devote to it

It has been emphasized above, that the only good and sufficient ground for the administration of a remedy in disease, is a clear indication for its use It is appreciated, at the same time, that to confine the administration of medicines in disease within the letter of this law, is impracticable The understanding of medical practice existent in the public mind determines this impracticability The era of the placebo has not yet expired But the reign of the placebo comes entirely within the spirit of the law The placebo is clearly indicated in the course of disease, by the absence of all indications for potential agents, in conjunction with a result of the existent medical education of the public The employment of the placebo when thus clearly indicated, is followed by the most salutary results

1222 Penn Avenue

ALCOHOL IN THE SICK ROOM

BY T D CROTHERS, M D ,

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Clinical studies of the histories and early causes of many cases of inebriety, indicate that the injudicious use of alcohol or its compounds, prescribed as medicine, have been the starting point of many lamentable cases There can be no doubt that such cases are more frequent than we are aware of, also that irregular practitioners and domestic prescriptions are responsible for a large share of them

A book on domestic medicine, quite popular a few years ago, and somewhat widely circulated, written by an irregular, in which alcohol was the common remedy recommended, has been the exciting cause in several well-authenticated cases of inebriety, and has probably been the origin of many others The free use of bitters, containing alcohol in combination with very impure drugs, is responsible for a large per cent of such cases Remedies that appear recommended in the newspapers, with alcohol as a base, are also dangerous Medical men who have become enthusiastic as to the possibilities of alcohol, have not infrequently prescribed it for every condition of exhaustion for a long time The results in many cases have been a possible transient good, at the expense of propagating another disease more intractable and disastrous than the one they sought to relieve The frequency of inebriety arising from such causes has brought out a special medical declaration in England, signed by most of the leading physicians and surgeons of the kingdom, calling attention to the belief that the inconsiderate prescription of large quantities of alcoholic liquids by medical men for their patients, gave rise to intemperate habits, asserting that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuation of its use when the occasion is past Bad results are not always clearly traceable, and do not follow in every case, or even in a progressive order, and hence are doubted As an illustration, an excellent physician said he could not, in his long experience of the use of alcohol as a medicine, recognize a single case of inebriety which followed from alcoholic prescriptions that he had given A few weeks after a case of inebriety was brought to me for consultation, in which the patient had taken by this physician's order brandy and cod liver oil for eight months, for incipient pulmonary hæmorrhage He recovered in part, but became an inebriate The brandy with cod liver oil was the first alcohol ever taken The disease of inebriety may be compared to malaria, which, having once pervaded the system, leaves a peculiar predisposition, which only awaits a train of exciting causes to spring into activity

Inherited conditions of the organism may exist which give direction to weakened functional activities, exploding in inebriety with great certainty The medical prescription of alcohol to such persons becomes the exciting cause, awakening and fixing conditions which may not break out at once, but sooner or later will be manifest It is a fact well established in medicine that certain illy defined states of the organism decidedly contraindicate the use of particular remedies This is manifestly so in the use of alcohol in many cases, particularly when there exist in the history indications of neurosal degenerations, or decided inebriate tendencies, or conditions of functional disorder, which are susceptible to and likely to take on organic disease Anæmia, neurasthenia and neuralgia, and some conditions of rheumatism, also asthenic diseases, belong to this class, and are often developed into serious disease by alcohol When alcohol is given medicinally any length of time, the danger *is greatly enhanced* The following are presented as typical cases, occurring in the practice of excellent physicians

Rev —— was the only son of a New York merchant, who became an inebriate at forty-five, and died His mother was an ambitious woman, always struggling into circles above her, and very nervous and impulsive When a young girl, she had St Vitus' dance, and at the birth of her son had convulsions She recovered with an entailment of neuralgia, and various functional disorders Her father was a hypochondriac for many years, and her brother, the uncle of the Rev ——, drank more or less all his life It is evident from this that a marked neurosal diathesis existed, with a tendency to inebriety, depending on circumstances Rev ——, at twelve, developed a very sensitive nervous system, and at puberty suffered for six months from low nervous fever and general anæmia He was noted in his academical studies for his great mental capacity and irregular habits of work In college he secured several prizes, and was one of those good-natured boys who waste much time during the day and make it up at night He drank soda and beer, and lived well During his studies at the seminary, preparatory for the ministry, dyspepsia came on, for which he used bitters, with some relief At graduation he was in appearance slim, of light hair, with a strongly marked nervous diathesis His first charge, a Baptist church, brought him in contact with a people who gave rich dinners, and lived high His dyspepsia returned, and bitters were used with apparent good results Two years later he married, and was called to a city church, when the mental strain was continuous and severe His habits of living were more or less irregular, and his dyspepsia came and went, although he continued to take medicine for this and various functional disorders His pulpit work was impulsive and exhaustive For weeks he would manifest great power and energy, then relapse into a condition of debility and indifference After a revival season of much excitement he went away to the seashore to rest, and drank a bottle of porter a day, with great relish and apparent benefit He returned to his work and continued drinking porter His nervousness increased, and a low nervous fever followed, ending in general exhaustion and functional paralysis, from which he recovered very slowly The next two years were spent in retirement, and then he became a pastor in a village church, and preached once a week Five years later he had grown more nervous and neuralgic, any special excitement caused great prostration He was often unable to continue his sermon, from want of control of his nervous system His mind seemed clear He would work out in the garden for days, or go hunting or fishing, then remain in the house for an equal or greater length of time He was firmly opposed to the use of alcohol in any form, but continued to use different kinds of drugs, and sometimes bitters, with electricity, etc Exhaustion, both mental and physical, with persistent neuralgia, became more and more prominent symptoms His church sent him to Europe for three months While travelling on the continent he drank wine freely, and came home much better A year later his old prostration and nervousness came back with renewed energy His family physician called a consultation, and after a long examination of the case recommended Bourbon whisky, with cinchona bark and other tonics The relief was marked and the effects very agreeable Increasing doses were demanded and soon he was intoxicated Then he became passionately fond of whisky, using it in large quantities four or five times a day A few months later he drank to intoxication, and from this time the progress of the case was rapid He resigned his church to avoid the publicity of drinking Retiring to the country he is to day an inebriate, broken down and drinking to intoxication at every opportunity His mind is enfeebled and full of delusions of self-control and ability to stop at any time

This patient inherited a tendency to nerve degeneration, his early habits indicated an alcoholic diathesis or condition of exhaustion which sought relief through the appetite Mental labor and strain of all kinds reacted in this way As he grew older this exhaustion became a sense of general agony and depression, and the organs seemed in sympathy with an undefined want, which alcohol of all other substances alone seemed to relieve His visit to Europe, with a free indulgence of wine, fixed this tendency which had grown gradually from year to year, through the use of wine and bitters and other remedies The untimely prescription by the physician precipitated his case and, as it were, exploded a long train of diseased tendencies

CASE 2 —John H , a farmer His parents both died of consumption in middle life His grandfather drank very hard after sixty years of age, and one of his uncles was considered insane Two sisters died of consumption, and one brother suffered many years from rheumatism, and finally died of some intercurrent affection Nothing unusual happened in childhood, except a severe attack of scarlatina, from which he suffered two or more years, with a discharge and deafness This passed away without entailment and through early youth up to manhood he was in good health and apparently of robust mind and body He worked on the farm from seventeen years of age, doing the usual work

At twenty-four he married and became owner and manager of a large farm He was temperate in everything except eating At twenty eight he was laid up in bed from a fractured femur, and suffered from a bed sore and low form of fever, for which he was given porter and brandy, and eggs, for many weeks On recovery he showed a marked taste for beer, and continued its use regularly This was continued for over a year, and alternated with whisky, during which time he became intoxicated several times From various causes he signed the pledge and reformed, though using cider occasionally At forty he began abruptly to use whisky, at a political meeting, and became intoxicated, he continued to use it for some weeks and then stopped, as before From this time he was nervous and very excitable and easily prostrated after any unusual event that interested him He became a hypochondriac and patronized quack and patent medicines for supposed heart disease At fifty he gave up his farm and came to the city to live He was nervous and full of whims and notions, and impulsive in his way and manner, using cider and occasionally beer The changed circumstances of city life, and want of healthy occupation increased his nervous prostration and mental disquietude Hypochondriac delusions came on and a physician was called, who treated him for six months, then came a council of physicians, who agreed that a whisky punch and a bottle of porter a day would answer the indications best A few weeks later he was intoxicated every night No effort to stop was of any avail now His mind sank down to the level of an animal whose only ambition was its gratification, particularly in drink He seemed maniacal if alcohol was withheld from him The physician who prescribed for him, pronounced it incipient dementia, and urged that he be under restraint A few months later he died in a state of coma from alcohol This case was also marked from the strong inherited tendency to drink, which was present in the consumptive and rheumatic diatheses of the family These diseases are often associated with inebriety, and noted as phases of this disorder Inebriety not unfrequently appears in the next generation, in rheumatic or consumptive diathesis The first intimation of this diseased tendency was intemperate eating After the fracture of his leg and its attendant debility, a desire for beer and stronger alcohols was prominent, developing and fixing all previous latent tendencies This he was able to control until a few years later it burst out again with abruptness, and from this time out there was evidence of permanent alteration of disposition and intellect. The emotions and motor functions seemed changed. And when he came under the care of the last physician, the indications of an inebriate diathesis were clear Nothing could be more fatal than the alcohol prescription These two cases appear to the general physician as simply, one, of nervous prostration and general exhaustion, the other, a hypochondriac with disturbed intellect and emotions Had a careful history of each been made the contra-indicative symptoms would have been apparent The general rule may be laid down that all cases of physical and mental exhaustion are extremely susceptible to the poisoning of alcohol, and liable to take on diseased conditions that are more or less permanent from its use 2 From the best authority of clinical observers in this country and Europe, the use of alcohol in the sick room is attended with great danger, unless judiciously used 3 The conditions contra-indicating its use are numerous and should be studied carefully where alcohol is thought to be of value 4 The value of alcohol as a medicine is not assured beyond all question, the evidence upon which it has been given will not stand the test of analysis or accurate clinical observation, and we should always be well assured of the diagnosis of the case, and have strong evidence sustaining its use as a medicine, in a given case

ON THE UNITY AND NATURE OF MORBIFIC POISON

BY GEO J ZIEGLER, M D , OF PHILADELPHIA

In the number of this journal for Dec 20, 1884, Dr G Frank Lydston, of Chicago, presented an interesting summary of the generalization of Dr G de Gorrequer Griffith, of England, "On the Unity of Poison in Scarlet, Typhoid and Puerperal Fevers, Erysipelas, Diphtheria, Sore Throats, Certain forms of Diarrhœa and Allied Affections, Pleurisy, Pneumonia, Pleuro Pneumonia, and many other Ailments usually considered to be separate and entirely distinct Diseases," in which the author states that "by unity is meant not that the poison is always the same, but that one poison—the one *origo mali*—whatever it may be, will originate several so called different affections, moreover, "that these ailments may be generated *de novo*, and from one common cause," as well as secondarily by contagion

But, while it is thus recognized that there is one common poison or basic cause for a large number of apparently diverse diseases, the precise nature of this primal poison is acknowledged to be undetermined by, and unknown to, the author

Now, this theory of the unity of cause and spontaneous origin of such diseases is of much more comprehensive application than is here given it, and is supported by reason, observation and experience, as well as exemplified in chemistry, physiology, etiology, pathology, hygiene and therapeutics, being also in direct conformity with the laws of nature in general Long since I arrived at the conclusion that there was *one common pathogenic factor or underlying* morbific principle of a great variety of apparently distinct diseases, and that all the varied so called scorbutic, necræmic, zymotic, septic, contagious, infectious, mephitic, putrescent, and allied diseases, by whatever name designated, are dependent upon one and the same basic *materies morbi* Moreover, observation and experience taught me that this primal poison and morbific factor from which all others originate, is of an alkaline nature, and finally, investigation convinced me that this general *fons et origo mali* and basic pathogenic principle is the well-known volatile organic alkali—*Ammonia*, that is spontaneously engendered within, as well as without the vital organism, which is frequently surcharged therewith from either or both intrinsic and extraneous sources Furthermore, that while the fixed alkalies—soda and potassa—in excess, induce a similar scorbutic state of the system, the primal poison and general basic pathogenic factor of all such maladies, and, in fact, the common underlying, complicating and malignant element of all diseases—local as well as systemic—is this omnipresent, noxious, volatile organic alkali—ammonia

Thus, the superalkalinity from an excess of ammonia in the animal organism induces a scorbutic, toxæmic, typhohæmic, septic, infectious, phlogistic, pyæmic and deliquescent dyscrasiæ, with concomitant necræmic, uræmic, lithæmic, zymotic, phlegmonous, febrile, suppurative, microbic, contagious, mephitic, colliquative, and disorganizing sequelæ, of a varied character and complexity, according to the quantity or degree of activity of this virulent agent in the economy, and special favoring influences of climate, season, weather, exposure, occupation, ingesta, tendencies and conditions of system, habits and modes of living, pestilential and other morbific agencies, which are manifested in diverse diseases, as malarial, yellow, ship, typhus, enteric, puerperal, and other malignant and low fevers, with variola, scarlatina, cynanche, diphtheria, measles, eczema, cholera in its various forms, diarrhœal, leucorrhœal, albuminous, serous, hæmorrhæal, purpuric, purulent, and sanious defluxions, erysipelas anthrax, carbunculoid, gangrenous, contagious, scorbutic, mephitic, putrescent, and colliquative diseases and complications generally—both constitutional and local Hence, while this primal *fons et origo mali* and basic morbific agent—ammonia—is always the same, the secondary and complicating poisons, contagious principles, microbes, pathogenic influences, morbid conditions and diseases may vary indefinitely

Thus, by a process of evolution from the constituent elements and basic principle of ammonia within as well as without the vital economy, varied noxious agents, poisons, ptomaines, contagia, microbes, and diseases of a scorbutic, purpuric, toxæmic, zymotic, septic, phlogistic, febrile, pyæmic, purulent, infectious, malignant, mephitic, colliquative, gangrenous, disorganizing, and adynamic character, are spontaneously as well as secondarily developed in the living body, in like manner as the multifarious plants—microscopic and macroscopic—or forms of life and organic substances—both noxious and innocuous, are produced in the earth from the same elemental principles, *according to season, weather, temperature,* moisture, or climatic, meteorological, and other favoring conditions, ammonia, with carbonic acid and water, affording the essential elements or basic material for the development of toxic and morbific agents, microzymes, disease, and decomposition *within as well as without the animal organism*

Hence, as all these varied manifestations, toxic principles, conditions, microbes, and maladies depend upon the same general agent and basic pathogenic factor of an alkaline and ammoniacal nature, it naturally and logically indicates the correct counteracting and true remedies or specific treatment therefor—both preventive and curative—which are of an acid, antialkaline, antiscorbutic, antizymotic, antiseptic, germicidal, disinfectant, resolvent, depurative and corroborant character, as practically demonstrated by sanitary, hygienic and therapeutic measures, from both empirical and scientific observation and experience, proof of which, with the special articles, forms, varieties, properties, combinations, and applications of protective and remedial agencies therein, I have presented in my recent work on "The Basic Pathology and Specific Treatment of Diphtheria, Typhoid, Choleraic, Zymotic, Septic, Scorbutic, and Putrescent Diseases" generally

January 30, 1885

MECHANICS OF THE V LEVER BRACE IN POTT'S DISEASE

BY C E WEBSTER, M D , CHICAGO, ILL

THE MECHANICS

My attention has several times been attracted by discriptions of this apparatus The paper recently published in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION so fully sets forth its construction and mode of application that a discussion of its mechanics may not be out of order

As described by the author, Dr Charles F Stillman, of New York, the apparatus acts upon the principle of a spring lever posterior splint How does it differ from the older application of this same principle?

FIG. 1.

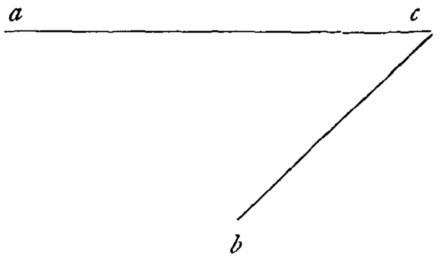
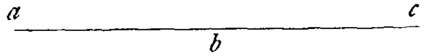


FIG. 2.



Let Fig. 1 represent the new apparatus and Fig. 2 the old. We will first consider its application as a lever. Traction is exerted on the ends of the spine, at *a* and *c*, pressure applied to the point of curvature, at *b*. As in each instance *b* is the fulcrum of the lever, the pressure at that point will equal the sum of the forces applied at *a* and *c*, therefore, as levers, we see that the two appliances are identical.

As springs, they differ materially. In Fig. 1 the spring is *a, c, b,* which is longer than *a c* the spring in Fig. 2. If the same sized rods were employed for each spring, in order to exert a given force at *b*, greater displacement of the points *a* and *c* of Fig. 1 would be necessary than of Fig. 2, for the longer rod would be more flexible.

This difficulty is overcome in the new apparatus by making the angle *a, c, b* adjustable, thus permitting any desired amount of displacement of the ends *a* and *c*. In the old apparatus, this adjustment of the ends of the spring can only be accomplished by bending the rod *a c* in a direction contrary to the curves of the spine. It is not so convenient but an equally efficient mode of making the necessary pressure.

In the older appliances the spring being short, any yielding of the spine at the point of curvature would cause a greater relaxation of the spring than in the new. For this reason, the old apparatus requires closer supervision by the surgeon than the new, and the new apparatus is more likely, in the hands of careless surgeons and instrument makers, to produce cordosis. There is no new principle applied in this instrument; it is simply a new application of an old principle, much used in spinal braces. As such, its range of usefulness can best be determined by a practical test.

MEDICAL PROGRESS.

MATERIA MEDICA AND THERAPEUTICS.

SALICYLIC ACID FOR CORNS.—M. Pierre Vigier (*Gazette Hebd. Med. Times*) observes that there have been for some time past sold in the shops various applications for corns under the most fantastic names, but of undoubted utility. Their authors have profited by the remarkable properties of salicylic acid, fixing it by means of collodion, and which, applied to the skin, produces a solid varnish, and causes neither pain nor other inconvenience. He has examined all these secret preparations, and believes that the following formula is a correct representation of their composition: Salicylic acid, 1 gramme, alcoholic extract of cannabis sativæ, ½ a gramme, alcohol, at 90°, 1 gramme, ether, at 62°, 2½ grammes, and elastic collodion, 5 grammes. Mix *secundum artem* and keep in a stoppered bottle. This is applied by passing over the corn several times a little brush, or the end of a match, which has been dipped in the liquid. This is repeated every other day for a week, and some days later the corn may be easily removed under pressure of the finger, or after a foot-bath.

SURGERY.

OSSEOUS FORMATION OF THE DURA MATER.—Dr. C. W. Morgan gives, in the *Australasian Medical Gazette*, the case of a West Indian black who went on a drunk, the effects of which kept him in bed for several days in a "sulky" condition, he neither eating, drinking, nor speaking to any one. On the fourth day the doctor saw him, when his case presented the following symptoms: Head thrown backwards and to the *left* side, teeth clenched, muscles of the jaw rigid, *left* sternomastoid in a state of chronic contraction, risus sardonicus of face affecting the *left* side only, eyes fixed and staring to the *left*, pupils sensitive to light, *right* arm semiflexed and rigid, ulceration of lower lip, no power of deglutition. Two days later condition much the same, a slight swelling is observable on the anterior surface of the right parietal bone, like an incipient "puffy tumor" as described by Pott. This tumor became more marked later in the history, was slightly painful when touched, causing the patient to flinch. From the eleventh to the fourteenth day he suffered from slight epileptic fits. He became comotose and died on the sixteenth day of his illness.

Dr. Morgan diagnosticated the existence of mischief immediately under the swelling inducing separation of the dura mater, but considered that to use the trephine would be running too great a risk. Post-mortem.—No external marks of injury to the head. On reflecting scalp a patch of ecchymosis observable under the "puffy tumor" above described. Pericranium non-adherent, and the surface of the cranium darkened and dusky-red in color in this situation. Calvarium removed and exhibits a discolored patch about the size of a five shilling piece, on its internal table, corresponding to the outward discoloration. Dura mater exhibits same appearance of dark patch, at the lower end of which there is a perforation leading to a cavity, in the interior of which is to be perceived growing from the inner surface of the *dura mater* a spiculated irregular shaped piece of bony deposit; the cavity containing no fluid nor matter. On the right side of the *falx cerebri* there is also a bony plate, somewhat like a small limpet shell, and also an irregular spiculated piece of bone. These are on the same plane with and adjacent to the cavity above described. The vessels of the brain were not congested, the ventricles contained a little fluid, probably post-mortem, the substance of the brain was soft and degenerative

THE THYROID GLAND IN ITS RELATIONS TO MYXŒDEMA, CRETINISM, GENERAL NUTRITION, AND SURGICAL TREATMENT —Mr Horsley has recently delivered two lectures on this subject, embodying the results of his experiments on monkeys, a brief of which appears in the *Medical Times* Mr Horsley supports the view which was first clearly formulated by Dr Felix Lemon, that cretinism congenital or acquired, myxœdema and cachexia strumapriva, are one and the same condition, and are closely related to this gland and the question of its removal The thyroid must be considered to be a gland from its structure It is bilobed, encapsuled, having its substance divided by trabeculæ of connective tissue which form a stroma with large alveolar spaces Running in the course of these trabeculæ are very numerous and large blood vessels and lymphatics, which latter form large lacunar spaces immediately outside the margins of the alveoli The nerves have at present been associated in function with the vaso-motor system Anatomical proof is yet wanting of the intercommunication of the acini, in an early stage they are composed of columnar epithelium, which later becomes cubical Their walls are surrounded by a rich capillary network, while their lamina contain a glairy fluid allied to mucin

After thyroidectomy the subject of the ablation becomes cretinous, dogs become idiotic and die comatose, monkeys assume the condition called myxœdema, which Mr Horsley believes to be one stage in a general and profound change occurring in the nutritive processes of the human frame, consequent upon the removal of the thyroid

Mr Horsley proceeds to give the details of the operation, post-mortem evidences in which show that in no case were the recurrent laryngeals or the sympathetic trunks injured, a fact which goes far to disprove the theory that myxœdema is a primary disease in, or injury to, a sympathetic nerve, then follows with the symptoms and post-mortem results, from which he formulates his facts to guide as accurately as possible to the ultimate elaboration of a theory as to the true pathology of myxœdema

1 Anatomical

(A) The thyroid appears to consist of two portions (1) a glandular, consisting of highly vascular acini, which excrete a mucoid substance—a mucin-excreting portion? and (2) highly vascular lymphoid nodules—hæmatogenous function?

(B) Excision of the gland is followed by a great increase in the quantity of mucin found in the tissues, an increased activity of the mucin-producing glands, and a change in function of other non muciparous glands whereby they become mucin-formers

(C) Profound changes also ensue in the blood The red corpuscles are decreased with leucocytosis, the coagulability is lessened, and its albumins are altered in character

(D) Nerve symptoms also appear, changes taking place in the lowest motor centres, causing rigidity, tremors, and paresis Changes occur in the higher psychological centres, whereby imbecility and cretinism occur, followed by death, which usually occurs in a condition of coma

Reviewing these facts, Mr Horsley points out that it is clearly shown that removal or alteration of the function of the thyroid is the cause of the general bodily condition Whether such changes may be due to the intermediate action of the vaso-motor or a trophic centre, it is impossible to say May not the thyroid be an excreting gland, the removal of which, as is usual in analogous cases, induces death? In support of this, it is urged that removal of one lobe causes hypertrophy of the other If subsequently the second lobe be removed, myxœdematous symptoms arise

The conditions demanding surgical treatment are (1) Hypertrophy or adenoma, with or without some amount of cystic degeneration or fibroid overgrowth, (2) cystic disease, (3) malignant new growth In this last case, only removal of the gland can be of any avail Adenoma occurs as exophthalmic and simple goitre The former has been relieved, it is said, by total or complete removal, and this treatment seems to hold out most chance of benefit Injection and removal are the two modes of treating simple goitre Injection with laceration of tissue, is very dangerous, as secondary inflammation may arise Simple injection has caused sudden death by the injection of the iodine into a vein, and the iodine travelling to the heart and causing thrombosis It is advisable to wait before injecting, to see by the flow of blood whether a vein has been wounded Excision of the thyroid as a whole, it is said, is absolutely unjustifiable, especially as excision of a part causes the goitre to shrink Mr Sydney Jones removes the isthmus between silk ligatures, and obtains good results

MEDICINE.

A METHOD BY WHICH ONE CAN SEE THE SHADOWS OF ONE'S OWN RETINAL VESSELS AND YELLOW SPOT —Dr W Odillo Maher, in the *Australasian Medical Gazette*, gives what he considers a better method than the well known one of Purkinje, for this purpose Standing at some distance (ten feet) from a lighted gas jet in an otherwise darkened room, and covering one eye, say the left, with the left hand, the observer takes between the forefinger and thumb of the right a strong convex lens and holds it at about its focal distance in front of the right eye Then, steadily gazing at the light through the centre of the lens, he shakes the lens rapidly backwards and forwards along its axis, or up and down, or from side to side After a few seconds the shadow of the forea centralis appears in the axis of vision as a light yellow patch studded with dark coarse granules Simultaneously the retinal vessels in the region of the yellow spot, including the finest capillaries, appear as dark cords against the yellow light The outline of the shadow of the forea centralis, which falls upon the most sensitive part of the retina, the yellow spot, is well defined, while the outline of the shadow of the optic disc cannot be distinctly seen, as it falls upon a much less sensitive part of the fundus The shorter and more rapid the movements of the lens the sooner the shadows of the retinal vessels and forea centralis appear, and the more distinctly are they seen

The main points of difference between this and Purkinje's method are

1st That the rays of light are not thrown obliquely on the sclerotic or cornea, but are directed along the visual axis, and consequently fall perpendicularly on the surface of the cornea

2d The image of the retinal vessels is not projected on a dark wall, but is seen against the yellow light

3d The shadow of the forea centralis is faint and difficult to recognize by Purkinje's method, whereas by this method it is as clearly defined and as easily seen as the shadow of the retinal vessels

ELECTRICAL NEUROSIS —M Fere (*Progres Medical, Med Times*) records the case of a woman, aged 29, who had exhibited various nervous symptoms, including well marked ovarian hyperæsthesia, had for two years presented the remarkable phenomena about to be mentioned She noticed that her fingers attracted bodies, such as pieces of paper, ribbons, etc , and her hair not only gave sparks when in contact with the comb, but had become very unruly in the matter of lying smooth When her linen came near her body a flash of light was produced, and her clothing adhered closely to her body, so much so sometimes as to interfere with the freedom of her movements These phenomena were more marked under the influence of strong emotions, and were lessened in damp weather, so that she was able to foretell what the weather was going to be like, from the increase or diminution in her state of electric tension The patient was thin and anæmic, and subject, especially in damp weather, to œdema of the legs With a view to prevent this loss of electricity, she was recommended to wear silk next to her skin, which was further powdered all over with lycopodium, but without much benefit Subsequently the daily application of static electricity, by means of an electric bath for about ten minutes, was followed by good results This fact confirmed M Fere in his idea that this was a case not of exaggerated production of electricity, but rather of an abnormal loss of it, probably owing to the dryness of the skin

THE DIAGNOSTIC VALUE OF CLINICAL METHODS USED TO DETERMINE THE PRESENCE OF ACID IN THE GASTRIC JUICE —Dr Dujardin-Beaumetz discusses this subject in the *Gaz Hebd de Med et de Chir* The Germans consider that an important point in the diagnosis of cancer of the stomach may be determined by the modifications produced by this disease in the acidity and digestive power of the gastric juice Leube, following the experience of Vanden Velden, holds that one of the first effects of the production of carcinomatous neoplasms in the walls of the stomach is to diminish the quantity of hydrochloric acid contained in the gastric juice To determine this fact three methods are made use of—that of washing out the stomach, the use of the sponge, and the use of the stomach explorer In washing out the stomach, the patient fasting, Leube introduces by means of the stomach sound 300 cubic centimetres of water at zero C He allows the fluid to remain a half hour, and then removes it by siphoning the stomach, using his reagents to determine its characteristics The use of the sponge is more common, and Dr Dujardin-Beaumetz tells us that most of the patients who go to Carlsbad for stomach affections are submitted to this examination before being permitted to drink the waters A small piece of sponge is covered by a thin layer of gum, provided with a thread of silk, swallowed by the patient, and pulled out again by the thread at the end of half an hour, the contained liquid is pressed out for examination In France they cover the sponge with a capsule before it is swallowed This method is not without its inconveniences, it is often very difficult to swallow the sponge, the presence of the thread in the pharynx excites vomiting, it is difficult to be positive as to whether the sponge has passed into the stomach or remains in the œsophagus, and finally but a very small quantity of liquid is obtained To remedy these defects Dr Dujardin-Beaumetz has prepared what he calls the gastric explorer, which consists of a resisting but flexible stomach tube, in the interior of which he places a glass reservoir whose lower extremity is provided with a small rubber tube extending beyond the end of the sound and thus placing the reservoir in connection with the mucous membrane of the stomach, its upper extremity is provided with a much larger rubber tube passing out of the superior end of the siphon and leading by means of a bit of glass tubing to a rubber bag, silken threads attached to the reservoir allow of its removal Its use is very simple it is introduced into the stomach of the fasting patient, and a vacuum produced by pressing upon the rubber bag, when the pressure is relieved the fluid contents of the stomach pass up and the fact is further indicated by inspection of the glass tube connecting the rubber tubing and bag Once removed, pressure upon the bag will discharge the liquid into the vessel prepared to receive it for examination

To recognize the acidity of the gastric juice in Germany, *tropocoline* is used, one of the coloring matters of the products of coal tar In France an analogous substance under the name of Poirier orange, from the house which prepares it, is substituted In commerce there are three varieties of tropocoline, viz zero, double zero, triple zero The tropocoline double zero is the one used, and is a yellow powder which, dissolved in water, gives a yellow color When these coloring matters are brought in contact with an acid, and especially hydrochloric acid, a handsome violet red color results Lactic acid gives an orange-red, a distinction which is easily recognizable This test renders it easy, from the degree of intensity of color produced, to determine the degree of acidity present To apply the test the fluid is filtered and placed on a watch-glass which rests on a white surface, and with the aid of a dropper, a solution (1 100) of the test is applied in drops until the color is apparent Leube continues his examination by submitting little cubes of albumen of a determined weight to the action of the liquid in a stove kept at the temperature of 40° C , watching the artificial digestion and comparing it with that in a given quantity of pepsin and hydrochloric acid

As to the diagnostic value of these methods, Dr Dujardin Beaumetz is in very great doubt It is questionable as to whether hydrochloric acid is secreted in the fasting stomach, where food remains in the stomach other acids, such as lactic, butyric and propionic acids, develop as the result of numerous fermentations In his own experience he has frequently obtained doubtful results from uncertain colorations Certain important physiological facts certainly result from this method, as in positively determining the acid dyspepsia of drunkards Leube concludes that these facts establish the presence of a tenacious and decided dyspepsia, but does this warrant the complicated method?

A NEW SYMPTOM OF LEAD POISONING —M Du Moulin has recently presented to the Brussells Academy of Medicine (*Rev de Therep*), a young man who five days previously was attacked with lead colic, but who no longer presented any apparent sign of lead poisoning, other than the blue line on the gums He called attention to a very curious and new pathognomonic symptom which frequently appeared before the blue line of the gums, always accompanied it, and is more characteristic and better demonstrated than the other This symptom manifests itself by the formation in the epidermis of a frequently very abundant deposit of sulphate of lead By the application of an alkaline sulphate he had traced black lines all over the body of the subject presented The reagent by the use of which he had inscribed the chemical symbol of lead (Pb) on the chest, on the back and on the flanks of the subject, was a solution of monosulphuret of sodium, in the proportion 5 per cent, in distilled water The sulphydrate of ammonia produced the same effect He gave his experience as follows

1 The skin of all persons affected with lead poisoning, so far as he had examined them, to the number of 14, contained lead in sufficient quantity to react directly upon the contact of a glass rod dipped in a solution of monosulphuret of sodium at 5 per cent

2 In recent cases this reaction is much stronger than in older cases

3 Washing with cold or hot water does no more than to remove a few epidermal scales containing lead, the limpid filtered liquid contains no lead in a soluble state

4 Prolonged washing with tartrate of ammonia removes from the skin this property of blackening by the sulphuret of sodium The water used contains all the lead in the form of a sulphate rendered soluble by the tartrate

5 The sulphuret of ammonia and the monosulphuret of sodium precipitate a considerable quantity of lead, in the form of the sulphuret

6 The surface washed by the tartrate of ammonia no longer reacts with the sulphuret of sodium, the deposit then which exists upon and in the epidermis is exclusively formed of sulphate of lead

7 Those parts of the body, which from the prolonged washing with tartrate of ammonia no longer react with the sulphuret, resume this characteristic at the end of a few days

8 The reaction, which is not very apparent at the end of one or two days, increases daily

9 The sulphate of lead then passes to the skin and becomes fixed there through the agency of the cutaneous secretion , but we are still ignorant of how that body, so insoluble in its nature, is carried there and becomes so fixed

ON DIPHTHERITIC ALBUMINURIA —Dr Cadet de Gassicourt (*Revue Mensuelle des Maladies de l'Enfance*, *Med Chronicle*) gives the result of his observations on eighty five cases of diphtheria in the Hopital Trousseau, in Paris The cases included diphtheria of the pharynx, larynx, or other parts, some being mild, others malignant Of these eighty-five cases sixty-three, or 75 per cent , had albuminous urine He divides his cases into four groups

1st Of twenty-two cases in which there was no albumen in the urine, twelve recovered and ten died

2nd Of twenty nine cases in which there was only a faint cloud of albumen, twelve recovered and seventeen died

3rd Of nineteen cases in which the amount of albumen varied from 025 to 1 per cent , eight recovered and eleven died

4th Of sixteen cases in which the amount varied from 1 to 1 5 per cent , three recovered and thirteen died

The author arrives at the following conclusions

1 The presence or absence of albumen is of much more prognostic importance in pharyngeal diphtheria than in croup

2 The absence of albuminuria in diphtheria indicates that it is of a milder nature than where albuminuria is present In croup it has no such signification

3 The presence of a small quantity of albumen (below 1 per cent) has no special signification, where it is above this amount the prognosis is extremely serious, but not certainly fatal

4 The amount of albumen indicates the intensity of the general toxæmia

RELATIVE DIGESTIBILITY OF FISH FLESH IN GASTRIC JUICE —Messrs R H Chittenden and Geo W Cummins have been making some extensive experiments upon this subject in the *Sheffield Laboratory of Yale College*, which they have published in detail and in tabulated form in the *American Chemical Journal* Their results show that the average digestibility of fish flesh is far below that of beef similarly cooked In but two instances, in the case of shad and lake white, does the digestibility of fish flesh approach that of beef, although, from the average of the experiments, several are as easily digestible as mutton, lamb and chicken They find the average digestibility of the salmon and trout to be considerably below the average of the more digestible white fish The difference between the digestibility of the light and dark meat of the same fish is somewhat striking, as in the case of the shad, where the digestibility of the former was found to be 97 25, as compared with beef, while the dark flesh was 87 32 This difference in digestibility is in part due, without doubt, to the amount of fat present, for in the flesh of white fish there is but little fat, it being accumulated mainly in the liver of the animal, while in red fish there is more or less fatty matter incorporated with the muscular fibres Eels and herring in digestibility stand below the more digestible white fish, mackerel, however, from a single experiment with the white portion of the flesh, showed a comparatively high digestibility In all of these experiments, however, with white fish, the outer layer of dark flesh was rejected, except in the case of the shad The varying differences in digestibility are not to be considered as due wholly to differences in the amount of fat in the flesh, thus the flesh of fresh cod contains but little fat, and yet it is one of the most indigestible of the white fish experimented with

With regard to the difference in digestibility of raw and cooked flesh, these observers arrived at the following results with a gastric juice containing but 0 2 per cent of pure hydrochloric acid

	Beef Raw	Beef Cooked (Steamed)
Amount digested from 20 grams	4 0792	3 8610
Relative proportion,	100 0	94 65

	Blue Fish Raw	Blue Fish Cooked (steamed)
Amount digested from 20 grams	3 7617	3,5885
Relative proportion,	100 0	95 39

It is plain then that the raw flesh in its digestibility is considerably greater than when cooked In some instances, at least, the flesh of younger animals is less easily digestible than that of older animals of the same species

AN ASCARIS LUMBRICOIDES EXTRACTED FROM THE UMBILICUS —Dr Donald Macphail presented the specimen and gave the history of a case of this character before the Glasgow Pathological and Clinical Society (Glasgow *Medical Journal*) The patient, a boy four years of age, enjoyed good health until about five months before (he had been successfully treated for thread-worms), when he became listless, cross and restless, and suffered from severe diarrhœa, belly became swollen and tender, began to emaciate, and had a slight attack of scarlet fever Belly protuberant and tense, superficial veins much enlarged Could bear firm palpation without much pain Percussion dull and tympanitic, a suspicion of fluctuation at the most dependent parts of the abdomen Weak, emaciated, apathetic, took but little food, occasional attacks of very severe diarrhœa, profuse night sweats, pulse quick, small and thready, but regular, respiration easy There supervened upon these symptoms a slight discharge, which in time became abundant, of thin watery pus from the umbilicus, with very offensive but not fæcal odor This discharge caused painful excoriation of the surrounding skin Later he suffered considerable pain and difficulty in micturition, especially at the beginning of the act, which produced marked retraction of the testicles Between the umbilicus and pubes there developed a diffuse, slightly elevated swelling, which was very tender to the touch, but without any redness of the skin On the day of the discharge of the lumbricoid he became apparently moribund with, for the first time, considerable œdema of the feet and legs That evening he suddenly called out that his "belly was dirty" On examination there was found protruding from the umbilicus about two inches of a round worm, wriggling actively Without difficulty his mother drew out the worm, which was about nine inches long From that time there was rapid improvement

In the discussion which followed, Mr Maylard thought that a very possible explanation of the condition was a patency of the vitello-intestinal duct It is known that a communication sometimes exists between the umbilicus and the ileum through a permanency of this fœtal connection, and it is not unlikely that the worm may have thus made its way to the umbilicus, excited inflammation, and then escaped

RESTORATION OF NATURAL COLOR OF HAIR — Vandeleur C Isdell (*Medical Times*) gives an account of the case of his father who, in 1861, when 62 years of age, was completely gray in the hair of his head and beard, whereas, in 1882, that is to say, 22 years later, when he died at the age of 83, the hair of his head was of its original natural dark color, the whole of it being quite dark with the single exception of a few gray hairs on each temple He had for many years kept his beard shaved off, so the change in it could not be noted

DR F H BOSWORTH reports, in the *Medical Record*, that on applying a two per cent solution of cocaine to the nasal passages, the venous sinuses below the mucous membrane become, within twenty or thirty seconds, so rigidly contracted as to expel all the blood contained in them, and to cause the membrane to cling closely to the bony structure which then becomes sharply outlined He has used the drug in hypertrophy of the nasal mucous membrane (*nasal catarrh*) acute *coryza* and in operations for nasal *polypus* In each case the venous congestion or turgescence was so thoroughly kept down that all discomfort was removed, and in the case of polypi not only the recognition and removal of the growth became quite easy, but also turned out a bloodless operation

ACNE is often reflex from urethra irritation Dr S Sherwell obtained marvelous improvement in the faces of two patients, after long treatment had failed, by passing cold sounds every third day The urethra was found sensitive, especially at about the junction of the membranous portion with the prostatic —*Jour C and V Dis*

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters *written for publication or* containing items of information, should be accompanied by the writer s full name and address although not necessarily to be publ shed All com munications in regard to editorial work should be addressed to the Editor

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Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, FEBRUARY 14, 1885

A NEW METHOD OF TREATING PULMONARY COMPLAINTS —Diseases of the lungs have long been treated by the inhalation of condensed or rarefied air Waldenberg, of Berlin, was one of the pioneers in this direction, and his apparatus, or some modification of it, by which patients are made to inspire condensed air, is largely used in Germany At various health resorts —notably, Reichenhall—pneumatic cabinets have been erected with a view to completely immersing the patient in a condensed atmosphere Reports concerning the efficacy of such contrivances are somewhat conflicting, except in cases of vesicular emphysema and chronic bronchitis, where great benefit is often derived The physiological effects of such treatment are pretty well understood, and are recognized to be essentially the same as those of a prolonged and forcible inspiration of air at ordinary pressure Indeed, to supply condensed air, or in other words, air at an increased pressure, to an individual incapable of respiring effectively, is but to supplement or augment his inadequate inspiratory efforts In consequence of an increase in the amount of tidal air inspired, the lungs are more fully expanded, a larger proportion of residual air is displaced, supplanted by fresh air, and by reason of a more vigorous expiration, offending substances are dislodged and expelled As a result of the fuller expansion of the chest, a larger amount of blood is supplied to the right heart and thence thrown into the pulmonary arteries Hæmatosis is furthered, and the nutrition, not only of the lungs, but of the entire organism, is improved Such, in the main, are the advantages secured by this mode of treatment In cases of emphysema of the lungs, German therapeutists claim great benefit may be obtained by having the patient expire into a chamber of rarefied air In this way the lungs are more fully emptied of air and dilated vesicles are allowed to collapse and thus aided in regaining their elasticity In contrast to these methods is another which Dr Herbert F Williams, of Brooklyn, has been employing for the past year and a half with the most encouraging results His interesting report, entitled "Antiseptic Treatment of Pulmonary Disease by Means of Pneumatic Differentiation," appears in the *New York Medical Record* of Jan 17, of the current year This treatment consists in lowering the pressure of the atmosphere upon the body of the patient, while at the same time the lungs are supplied with medicated air at ordinary pressure To accomplish this a cabinet, "The Pneumatic Differentiator," is used, which is provided with an air-chamber By exhausting the air in this latter and allowing more or less of that within the cabinet to pass into the chamber, atmospheric pressure within the cabinet is reduced to any degree desired, as shown by a barometer The degree of rarefaction employed ranges from a barometric fall of one-tenth of an inch to two inches, and corresponds to an altitude of from one hundred to two thousand feet The patient sits in this rarefied atmosphere, yet breathes air conducted to him from outside In order to render his respiration as vigorous as possible, by preventing the escape of air through the nostrils, these are kept closed Furthermore the air inspired is impregnated with any desired medicament

It is evident that this is practically but another method of administering condensed air, and must achieve the same results In consequence of the lowered atmospheric pressure upon the chest walls, these do not assume a permanent inspiratory expansion, but are probably enabled to expand more fully, as likewise do the lungs In other words, as less resistance is offered to inspired air, its pressure becomes relatively increased thereby, which is equivalent to the inhalation of air at originally higher pressure, *i e*, condensed air Moreover, Dr Williams is of the opinion that the vigor and effectiveness of expiration are augmented If so, this is in effect the same as expiring into a rarefied atmosphere

Dr Williams recognizes the benefit due to the deepened inspiration and forcible expiration thus obtained, in expelling secretions, dilating collapsed lobules, etc Nevertheless, he appears to find the chief advantage of this method in the readiness with which medicaments may be applied to pulmonary tissues "Under given conditions of temperature," he says, "air at normal density affords its best vapor-carrying capacity" and subjected to the pressure of a powerful expiratory effort, it "must condense" and deposit the remedial agent upon the internal lung surfaces. That medication may be thus produced, and the results of such topical applications be most happy, we will not dispute, but reserve opinion until further observations afford definite *data*. Yet, when he expresses the hope that a one-thousandth solution of corrosive sublimate or a one per cent solution of carbolic acid will destroy the tubercle bacilli, we venture to remind him of the investigation of Schill and Fischer. These observers found that even a two per cent solution of the bichloride was powerless to destroy the bacilli in question, and that of carbolic acid very strong solutions (five per cent) were necessary. We believe the Doctor must look for the beneficial action of the solutions he employed to some other virtue than that of antisepsis. However, that most encouraging results were obtained by "Pneumatic Differentiation" is undeniable. The total number of cases treated was sixty-two, with thirty-four-recoveries, ten improvements, seven non improvements, eleven deaths. Two cases of nervous cough were not improved. Twenty cases of bronchitis recovered, three of unresolved pneumonia recovered, as did six out of seven cases of primary infiltration, the other being benefited. Of nine cases of acute catarrhal phthisis four recovered, one improved, two did not improve and two died. Two of chronic catarrhal phthisis died; of nine of chronic fibrous phthisis eight were improved, one not; five cases of chronic tubercular phthisis died, one case of tubercular pleurisy and one of laryngeal phthisis were not improved. One of abscess of the lung recovered. One of hæmorrhagic phthisis and one of atrophy of the lung died. As might be expected, phthisical patients were the least benefited though some certainly showed marked temporary amelioration of symptoms with prolongation of life. Five cases of acute tuberculosis are detailed, in which almost miraculous results followed this treatment. The author classes them as cured. The disease was certainly arrested and put in abeyance, but we should hardly like at this early date to call them cured. Space forbids further discussion of them, and hence we recommend their careful perusal to our readers as narrated in the *Record*. We are likewise compelled to refer the reader to the original article for particulars as to the degree of rarefaction, its equivalent in altitude, number of treatments and other interesting *data*. We are pleased to learn that Dr. A. S. Houghton, of Milwaukee, has been furnished with a cabinet, and we hope he will soon be in position to supply us with additional facts.

The influence of "Pneumatic Differentiation" upon the circulation is to be discussed in a paper by Dr. Tiegel. The field thus opened appears to give promise of a rich harvest, and we trust other practitioners will cultivate it.

MEDICAL LEGISLATION.—This being the season of the year when the legislatures of the several States are generally in session, we notice before many of these legislative bodies bills or forms of laws designed for regulating the practice of medicine and surgery. A large proportion of these bills have been prepared and recommended by some medical society or professional organization. We have been interested in examining the details of such of these proposed laws as have come directly under our observation, and we regret to state that most of them bear evidence of having been framed with far more reference to the avoidance of popular prejudices, or the reconciling of medical factions and supposed conflicting interests, than to any sound principles of legislation or of political economy.

For instance, in the bill before the legislature of the State of Texas, we find the following provisions:

SECTION 1. *Be it enacted by the Legislature of the State of Texas*. That there shall be appointed by the Governor, within twenty days after the passage of this act, a State Board of Medical Examiners in this State, consisting of nine reputable physicians, who shall be graduates of legally chartered medical colleges, and who have practiced medicine or surgery for not less than ten years, but none of whom shall be connected in any manner with any medical school or college.

SECTION 2. The nine members of said Board shall serve for two years each, or until their successors are appointed.

SECTION 4. The said Board, shall, on a day fixed by them in every two years, elect from their own number a President and a Secretary, who shall hold their offices respectively for two years, and until their successors are appointed and enter upon the duties of their offices.

SECTION 5. The said Medical Board shall examine all applicants for license to practice medicine or surgery in this State. They shall meet quarterly, on the second Tuesday in January, April, July and October at Austin, and at such meetings shall faithfully examine all candidates referred to them for that purpose by the President of said Board, and the Secretary shall keep a detailed report in writing of all questions and answers of each examination, together with a separate opinion of each examiner as to the candidate in each case. The examination shall be conducted in writing, except clinical examinations, which may be oral. The President and Secretary of the Board shall have authority to administer oaths, and the Board to take testimony in all matters relating to its duties.

SECTION 6. Such examinations shall be in hygiene, anatomy, physiology, pathology, chemistry, surgery and obstetrics.

SECTION 8. Any person on paying fifteen dollars to the Sec retary of the Board, and on presenting a receipt for the same to, and applying to the President of the Board shall receive an order addressed to the aforesaid Medical Board, instructing them to examine the candidate at the next quarterly examination, providing proof satisfactory to the President is first given, that the candidate is over 21 years of age, of good moral character, and has studied clinical medicine and surgery in hospitals containing not less than fifty beds, and having an average attendance of not less than thirty patients

SECTION 10 The State Board of Medical Examiners shall establish such rules and regulations as they may deem necessary to insure the faithful execution of this act

SECTION 15 Any person who shall practice medicine or surgery in this State without a license, as provided for in this act, shall be guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine of not less than $100 nor more than $500, for the first offense, and for each subsequent offense by a fine as aforesaid or by imprisonment in the county jail not less than thirty days, nor more than one year, or both at the discretion of the court The fine, when collected, shall be paid to the secretary of the Board, for the benefit of the State Board of Medical Examiners

SECTION 16 For the purposes of this Act, the words "practice of medicine or surgery" shall mean to annex the letters "M D" to one's name, or to suggest, recommend, prescribe, direct or employ, as a matter of business, or for a fee, for the use of any person, any drug, medicine, appliance, apparatus or other agency, whether material or not material, for the cure, relief or palliation of any real or supposed ailment or disease of mind or body, or for the treatment, cure or relief of any wound, fracture or bodily injury, or infirmity or deformity

SECTION 19 The State Board of Medical Examiners shall have the power to strike the name of any practitioner of medicine or surgery, guilty of unprofessional or dishonorable conduct, from the registry list, and to refuse to allow his name to be recorded or to permit him to practice medicine or surgery in this State, upon unanimous vote, after giving the accused an opportunity to be heard in his defense

These are the essential features of the proposed law It simply provides for the appointment by the Governor, of a State Board of Medical Examiners composed of nine practicing physicians with certain qualifications, and with a tenure of office lasting two years, or just about long enough to get acquainted with their duties

They are required to meet four times a year for the examination of all candidates who may present themselves with an order from the President of the Board, certifying that they are entitled to such examination The only conditions required for obtaining the order from the President, are the payment to the Secretary of the Board the sum of fifteen dollars, with proof of being 21 years of age, of good moral character, and of having "studied clinical medicine and surgery in hospitals containing not less than fifty beds, and having an average attendance of not less than thirty patients" Not a word is expressed regarding any standard of general education, nor length of time required for studying medicine and surgery, nor even whether the candidate shall study in the hospitals alluded to, three years or only *three days*

If it be said that these matters are to be regulated by such rules and regulations as the Board may adopt, it can be answered by the fact that the entire Board is liable to be changed every two years, and consequently that the rules and regulations may change just as often

Again, it will be seen that the examinations of the Board are limited to "hygiene, anatomy, physiology, pathology, chemistry, surgery and obstetrics," leaving out entirely materia medica, therapeutics and practical medicine, the three branches of more direct practical importance to the people of the State than all the other branches united By another bill, or separate legislative act, it is proposed to make this same "State Board of Medical Examiners, under the same organization, the State Board of Health," which "shall have general supervision of the interests of the health and life of the citizens of the State" of Texas The same board is also to constitute "the Bureau of Vital Statistics, and to procure such data from all local authorities and health officers throughout the State, as may enable them to prepare an annual report to the Governor on the subject of vital statistics" There is only one thing which actually disqualifies any reputable physician of Texas, who has practiced his profession not less than ten years, from receiving an appointment on this important board, and that is, connection in any way with a medical college The subject of a State Board of Medical Examiners for the State of New York, was reported on by a committee and elicited much discussion, during the recent annual meeting of the old Medical Society of that State Such discussion resulted in a vote recommending the creation of a State Board, composed of nine members, to be appointed annually by the Regents of the State University

Six of the nine members were to be selected from the membership of that Society, three of the six to be also members of medical college faculties, the other three to have no connection with such colleges, while the remaining three members of the Board are to be appointed from the incorporated homœopathic and eclectic State Medical Societies of that State As there are eight or ten incorporated medical colleges in the State of New York, the three members of the State Board to be selected from the faculties of those institutions could directly represent only a small minority of them, and would be regarded with suspicion by all the rest, while the apportionment of the other six members of the Board, to certain incorporated medical societies representing three classes of medical men, or so-called schools of medicine, if enacted into a law, would constitute a direct legal recognition, not only of special factions and isms in medicine, but also of different standards of education for men licensed to pursue the same calling The enactment of such a law would constitute a species of class legislation having no tendency to advance either the science or art of medicine, but strongly tending to perpetuate and foster the several factions and pretended medical systems that are recognized by its provisions As we have said on other occasions, the only legitimate basis on which governments can assume to enact laws for the regulation of the practice of medicine, is the protection of the people from the impositions of ignorance and knavery on the part of those who attempt to practice the healing art And no law will be permanently efficient in affording such protection, that does not make proper provision, first, for the exaction of a fair standard of general education prior to entering upon the study of medicine, second, for a minimum standard of medical attainments, or what shall constitute the necessary curriculum of medical studies to be mastered as a requisite for license to practice, third, for the minimum of time to be devoted to the study of such curriculum, and what proportion of it shall be spent in medical colleges and hospitals, and fourth, for an independent and properly qualified State Board of Examiners, charged with the executive duty of seeing that the three preceding provisions have been faithfully complied with, and by direct personal, impartial and uniform examinations of all candidates alike, grant a license to those only who are found qualified to practice medicine and surgery with safety to the people, without any regard to, or recognition of, special schools or medical factions of any kind Laws for the regulation of medical practice, founded on these principles and including the clearly defined provisions just stated, would greatly aid in the advancement of medical science, in securing a more thoroughly qualified body of medical men, and consequently in benefiting all classes of the people If it be said that public sentiment is not yet sufficiently enlightened to sanction the enactment of such a law, then let us labor and wait until it is, rather than lend our influence to such imperfect enactments as serve no other purpose than to confer a government license upon half a dozen sorts of doctors, by which the whole are leveled downward instead of up

EDITORIAL CHANGES —Dr J Nevins Hyde, who for several years past has been the chief editor of the *Chicago Medical Journal and Examiner*, has retired from that position, and Dr S J Jones has been appointed by the Directors of the Medical Press Association to fill the place Dr Hyde has discharged his editorial duties with decided ability and good judgment, and while we congratulate him on being free from the annoyances and unremitting work incident to editorial life, we sincerely regret his departure from the editorial fraternity We welcome his successor, with the hope that he will find his new field of labor both pleasant and profitable

DR JOHN MONTGOMERY, father of Dr Liston H. Montgomery of this city, died at his residence in Adrian, Seneca county, Ohio, on the 29th of January, 1885, aged 63 years After having acquired a fair literary and professional education, chiefly by his own labor, he entered upon the practice of medicine in 1845, and performed the arduous duties of his calling with a marked degree of fidelity and success until near his death—a period of about forty years After suffering two attacks of pneumonia from which he recovered, laryngeal phthisis was developed apparently from night exposure in the performance of professional duty, from the wasting effects of which he died

OHIO STATE SANITARY ASSOCIATION —The second annual meeting of this organization was held in the Board of Trade room, City Hall, Columbus, Ohio, on the 5th and 6th inst , and was well attended by those interested in the sanitary improvement of the State Dr William Morrow Beach, of London, Ohio, presided and delivered an address on "Epidemic and Contagious Diseases in this Country " A considerable variety of papers of more or less importance were read and discussed, and recommended for publication

THERAPEUTIC GAZETTE —We have received the first number of Vol I , third series, of this valuable monthly journal of physiological and clinical therapeutics It is the first issued under the new editorial management of Drs Horatio C Wood and Robert Meade Smith, of Philadelphia It is filled with matter of interest and practical value

MEDICAL SOCIETY OF LONDON —This is one of the oldest medical societies in Great Britain, having been founded in 1773 At a recent meeting of the Society Dr John V Shoemaker, of Philadelphia, was elected a Fellow

SOCIETY PROCEEDINGS

OBSTETRICAL SOCIETY OF PHILADELPHIA.—STATED MEETING FRIDAY, JAN. 2, 1885.

The president, Richard A Cleemann, M D , in the chair

Double Uterus and Vagina —Dr Wm Goodell described a case which had been sent to him on account of pain in the back, various nervous symptoms and difficult coition The vagina was double throughout its entire length Entrance had apparently been effected indifferently on either side of the septum The cervices were united like the barrel of a double-barrelled gun There was a slight divergence of the upper third of the fundus The sound entered three inches into each cavity The septum vagina was divided up to the cervix, and her physician reports great relief to the general symptoms

Dr C McClelland described a similar case Pregnancy had progressed to the third month, when the case came under his observation The vaginal septum was complete The external contour of the cervix was normal, but a thin septum, extending from the os to the fundus, divided the cavity into two parts The prominence of the uterus was greater on one side of the abdomen The sound was not passed The vaginal septum was divided shortly before labor A living child was delivered About the third day after delivery a mass, apparently of decidua, was thrown off after three or four hours of labor-pains After involution was complete, sounds were introduced into the uterine cavities and the handles diverged one and three-fourths inches A second conception occurred afterward on the other side of the uterus

Dr Goodell some years ago had under his care a case which he at first diagnosticated as an extra-uterine pregnancy, as he apparently found the uterus empty, passing the sound into it, while undoubted signs of pregnancy existed The fœtal tumor was larger toward one side of the abdominal cavity, while the uterus was deflected to the other side He saw the patient every two weeks, and made frequent careful examinations He sent the patient to the university hospital and fixed a day for operation One day while lecturing on the case, he had his hand on the abdomen of the patient and felt a contraction and hardening under his hand This so resembled the action of uterine tissue, that he sent the patient to the Preston Retreat for observation She was delivered spontaneously

There was but one cervix and one os, but there was a uterine septum higher up dividing the cavity into two parts

Dr Harris remarked that the observer in these cases is liable to be deceived, because the enlargement of the uterus causes it to rotate, the empty half of the uterus admitting the sound in the median line The uterus, too, is generally poorly developed, as this form of uterus is probably the result of arrest of development, and its thin walls do not give to the palpating hand, the normal sense of thickness and resistance

Double Ovariotomy with Unusual Complications —Dr W H Parish reported the following case In September, 1884, I saw, in consultation with Dr M O'Hara, a lady who had been under his treatment for a number of months She was 52 years of age and of exemplary habits The menopause had been established for a number of years, and she had enjoyed good health until a few months ago In June, 1884, she noticed for the first time that her abdomen was enlarged In July she consulted Dr O'Hara, narrating symptoms of indigestion In August the abdomen had become so enlarged as to occasion concern on the part of the patient, and she had submitted to an examination by Dr O'Hara About Aug 15th Dr D F Willard saw her in consultation with Dr O'Hara, and the diagnosis of ovarian tumor was coincided in On Sept 6th I saw the patient with Dr O'Hara, and also diagnosticated ovarian tumor The physical signs were the usual ones characteristic of ovarian tumor There was distinct resonance in each flank, and no indication of fluid in the peritoneal cavity The abdominal distension had become very considerable, occasioning no little interference with respiration, and was associated with slight œdema of the lower extremities and general emaciation Removal by operation was urged upon the patient, but was positively refused After the lapse of ten days I again saw her with Dr O'Hara The difficulty in respiration had so greatly increased as to prevent sleep except in the semi-erect position But little nourishment had been taken and exhaustion had correspondingly increased In the erect position the pulse was 160 per minute, in recumbency, 130 The abdomen measured forty five inches at the umbilicus Its shape had changed since my previous visit In the flanks there was distinct bulging, with fluctuation and percussion dullness I diagnosticated peritoneal dropsy as a complication of the ovarian cyst The œdema of the lower extremities had increased The patient had requested that she be tapped, and it was with reluctance that I consented to resort to that measure On Sept 14th, with the assistance of Drs O'Hara and J B Roberts, I attempted to diminish the size of the abdomen by tapping the cyst, using for that purpose the ordinary trocar and canula Only a few drops of thick, gummy substance were obtained The cyst's contents were too thick, too jelly-like, to run through the canula But a single puncture was made The patient now gave her consent to the performance of ovariotomy

Sept 16 The patient has been fed and stimulated as her condition demanded or permitted Pulse 120, resp 40, temp 98¾° F As yet no apparant disturbance from the tapping Sept 17 Pain referred by the patient to the bowels, three movements, probably resulting from indigestion Sept 18 Operation performed, previous to the operation, pulse 130, resp 40, temp 99° F Tongue dry and brown Bowels moved twice during the night Still has pain, supposed by the patient to be in the bowels There were present Drs O'Hara, A H Smith, J B Roberts and McElroy The patient was etherized by Dr Roberts, and the usual incision along the linea alba was made. The tumor was found to be adherent to the anterior abdominal wall. An attempt was made to break up these adhesions, but the cyst wall was so extremely thin that the cyst was soon torn into. Its contents were too gummy to flow, and it was necessary to scoop out this substance with the hand. The contents had the consistence and appearance of calf's-foot jelly and was adhesive like gum, sticking to the hand so that it was necessary to strip it from one hand with the other. There were numerous slight adhesions to the intestines, but as the cyst wall was so extremely thin these adhesions were not troublesome, portions of the cyst wall being left attached to the intestines. It was soon discovered that the cyst wall had ruptured prior to the operation, and that every portion of the peritoneal cavity contained quantities of the colloid material and masses of dark grumous blood. The contents had doubtless escaped gradually from a rent in the upper posterior portion of the cyst several days before the tapping. It was the presence of this material in the peritoneal cavity that led me to diagnosticate the coexistence of peritoneal dropsy. There was no serum in the peritoneal cavity. Washing the peritoneal surface with water would not remove the colloid material, and it became necessary with hand and sponge to remove it from the under surface of the liver, from about the spleen and kidneys as well as from among the intestines. After emptying the large tumor, it was discovered that there was a smaller one about the size of a fœtal head, unbroken and without adhesions and partly pressed into the pelvis by the superincumbent large one. The two tumors presented the same characteristics. They had thin transparent walls with numerous internal alveoli and thin septa, with gummy colloid contents. About the base of each, but especially of the larger, there was a limited amount of solid substance. The pedicle of each was ligated and dropped into the abdomen. Each tumor evidently grew from an ovary. The general peritonium, wherever it could be seen or felt, presented innumerable cysts with walls and contents like those of the ovarian cysts. These peritoneal cysts varied in size from that of a millet seed to that of a pea. Many of the larger ones were ruptured by the hand or sponge. These minute cysts were not arranged in clusters with stem like attachments to the peritoneum, but were isolated and had the appearance of blebs on the peritoneal surface. The peritoneum presented general injection of its capillaries with slight roughening of its surface, but there were no evidences of active or decided peritonitis. The hæmorrhage was but trifling and but few ligatures were applied. The abdominal incision extended about an inch above the umbilicus. A glass drainage-tube was introduced at the lower angle of the wound, and the remainder of the incision was closed with silver sutures.

At the close of the operation shock was not great, pulse 134. Morphia was given, and the patient passed a somewhat comfortable night. No vomiting. Morning of 19th, pulse 138, res. 34, temp. 100° F. Evening, pulse 140, resp. 30, temp. 102° F. Vomiting a little, and abdomen somewhat distended. Face pale and features pinched. Three ounces of pinkish serum from tube. Vomiting checked by swallows of hot water and a mixture containing creosote and sodii bicarb. Tube washed out with carbolized water. The third night was restless, with vomiting. Next morning, pulse 150, resp. 26, temp. $101\frac{3}{4}$°, increased stimulants, and at noon pulse was 138, resp. 26, temp. $100\frac{3}{5}$°. Fourth night, slept some, less vomiting, she takes koumiss, and retains it. Next morning pulse 140, resp. 20, temp. $100\frac{4}{10}$°. Fifth night, pulse 120, resp. 22, temp. $101\frac{4}{5}$°, stronger. Three ounces of a somewhat offensive fluid were taken from the tube, bowels were moved instantaneously. Sixth night she slept well, pulse 114, resp. 23, temp. $101\frac{1}{3}$°, sutures removed, union complete. Tube slipped out, and could not be introduced again. It left a canal, with healthy granulating walls. Seventh night vomiting returned. She did not receive the usual amount of stimulants during the night. Exhaustion and vomiting increased, without additional rise of temperature, and patient died on the ninth day. The death was doubtless due to exhaustion. The disease of the ovaries and of the peritoneum was doubtless colloid cancer. The tumors and the material removed from the peritoneal cavity weighed fifty pounds. It seems right to conclude that had the tumors been removed in their earlier stages, the patient would have, most probably, recovered from the operation, and have remained exempt from the disease months or years, or perhaps permanently.

Dr. Montgomery spoke of the advantages of early operation, before peritoneal involvement. He also alluded to the dangers of tapping. He gave a short history of a case of ovariotomy with colloid contents, and recovery from the operation, but followed by death six weeks later from cellulitis and ascitis, the cause being unknown.

Dr. Baer related a somewhat similar case, in which the patient recovered, but is now apparently dying from a recurrence of the disease in the upper part of the abdomen.

Dr. Parish, in closing, said that the tapping was done with reluctance, but did no harm in this case. The peritoneal complication made the case hopeless.

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CHICAGO MEDICAL SOCIETY

Stated meeting, January 19, 1885.

Remarks on the Bacillus of Syphilis.—This subject was discussed at considerable length by Dr. Zeisler

The first half-dozen pages of his paper consisted of a translation from Dr Sigmund Lustgarten's communication on the "Specific Bacilli of Syphilis," delivered at the meeting of the Vienna Medical Society, November 21st last And as the subject is a very important one, a few extracts from the translation are herewith presented Dr Lustgarten "has succeeded in showing in microscopical sections from two syphilitic chancres and one syphiloma, bacilli which are perfectly characterized by their color reaction—by their form and relative position They are represented as straight or somewhat curved little rods, slightly larger, but having the same appearance as the bacilli of tuberculosis They are found singly or in small groups, enclosed in lymphoid, somewhat distended cells, and show under a powerful microscope light spots similar to those which Koch regards as spores in the tubercle bacilli The method of coloring makes it possible to distinguish them from the bacilli of lepra and tuberculosis, and from all other pathogenic bacteria as yet known The fact of their always being enclosed in cells excludes the possibility of deception by putrid formations," etc As a comparative illustration that the bacillus of syphilis is no rash conjecture, the writer alluded to the mistakes of Finkler and Prior, in Bonn, of stating the identity they claimed of the bacilli of cholera nostra and cholera Asiatica Likewise that Lostoffer, in Vienna, about fifteen years ago, thought he had found characteristic micro organisms in the blood of syphilitic individuals which he called corpuscles of syphilis, but which afterwards were found in lupus, and even in persons in normal health, and, furthermore, that as the author quoted from has made the culture of this bacillus, which has also been confirmed by Koch, it seems that such evidence is sufficient and should banish any doubt as to the importance of the new discovery and that it perhaps exceeds the discovery of the cholera bacillus, as syphilis is a disease of such general occurrence and not of epidemic character

Treatment of Syphilis with Hydrargyrum Tannicum —Nearly one year ago the first trials with this new remedy were made in the treatment of this disease, at Professor Kaposi's clinic in Vienna The results it accomplished were remarkable, and the advantages in using it were so desirable that it is now quite freely used in Germany by Gorges, Auspitz and others Mercury in any form is capable of producing specific effects in this disease, yet the method of introducing it into the system by inunction, or absorption, according to the writer, is not unscientific or invaluable So, too, is the method of subcutaneous injection of mercurial solutions, yet there are such disadvantages in using them in this manner as to utterly preclude it being done, as there may be, on the other hand, many cases where internal treatment, "per orem," is not practicable When the latter method is made use of, the protoioduretum hydrargyrum is mostly prescribed

Rapid absorption into the circulation without producing disagreeable effects is accomplished when the hydrargyrum tannicum is administered This remedy is a tannate of the protoxide of mercury It is without odor or taste, and is only soluble when decomposed The preparation contains about 50 % of metallic mercury Hydrochloric acid makes no sensible impression upon it If nitric acid is added, the remedy is easily dissolved Very dilute alkalis, ammonia, solutions of caustic potash, and the alkaline carbonates reduce it in a short time to a sort of magnesia composed of very small particles of metallic mercury The rapid absorption of this remedy into the system is proven by an abundant mercurial precipitate found in the urine shortly after administering it

The remedy is given in nearly all forms of syphilis—in recent eruptions, in moderate papular, pustular and gummous syphilides Twelve cases thus treated were then alluded to by the writer as having been published recently in a Vienna journal as cured, all of whom he had seen, and confirmed the report, and the surprising results obtained Six of the cases were primary eruptions, three cases were gummata, two were syphilides with small papules and large pustules, another was a relapse of secondary syphilis In from seven to fourteen days after the remedy was begun a rapid diminution of the lesions will be observed, and in three or four weeks they will have entirely disappeared In a case the writer treated recently, that of H G, æt 25, who contracted a chancre last June, and treated by another physician, when six weeks later roseola appeared, and with other various symptoms he had been taking a number of external and internal remedies up to Sept 14 About three months after the initial symptoms of the disease were manifested, Dr Z was consulted The patient at this date had a largely diffused maculo-papular syphilide Mercurial frictions were advised at once, until Sept 19, before the hyd tannate could be procured From this date until Oct 5 the patient took three decigrammes (equal to 4½ grains) of the preparation daily, at which time the eruption had entirely disappeared, and only a few pigment spots could be seen, nor was there any symptom of salivation observed The remedy was continued until the first of November, when the patient was discharged cured

The drug is usually given in doses of one decigramme (about 1½ grains), with four or five grains of sugar, three times a day, one hour after meals When it is thus given, it is rare that any symptom of mercurial salivation is produced Alkaline carbonates, considerable quantities of mineral water containing such salts should be avoided at the time the remedy is being taken, for these articles decompose the salt Neither must the administration of iodide of potassium be permitted, for the same reason, and besides, it would form a large amount of iodide of hydrargyrum

The writer has never seen any of the disagreeable symptoms of mercurial intoxication—stomatitis, salivation, etc , produced while a patient was using this remedy, as is often the case where other preparations of mercury are used , nor was there any irritation to the bowels induced where the remedy was taken for weeks in seemingly such large doses as four decigrammes, or about six grains, daily He had seen in all about twenty cases thus treated During the administration of it digestion remains good, and the bowels soluble, which is doubtless explained by the partial decomposition of the salt in the intestinal juices, and partly from the presence of tannic acid Should the bowels become loose, opium in one half centigramme quantities (one-sixth of a grain) could, if necessary, be added to each dose While this new remedy may not produce a revolution in the treatment of syphilis, the use of it deserves to be classed in the *role* of the best remedies likewise employed in the treatment of this disease

"*A New Method of Counting a Rapid Pulse*," is the title of a short paper by Dr A E Hoadley He admitted it was quite probable that it may have been practiced by others, or possibly described in some medical journal, but he had never seen it published, nor heard of any physician trying it Therefore he claimed it as original and worthy of record Before proceeding to a description of the writer's plan, it may be well to state his attention was attracted in this direction by reading an article, some months ago, on the same subject, in which the method referred to consisted in tallying the pulse with a pencil on a piece of paper for a fraction of a minute, and then counting the tally marks After making several trials of that method, which oftentimes is impracticable, he concluded that there must be an easier and more convenient way of counting a rapid pulse, which could be accomplished with greater facility, and be of scientific value His method consists simply in counting every alternate pulsation for a minute, and then multiplying the number by two In counting every other heart beat, one counts half as fas as the pulse is going, which with a rapid running pulse is deliberate A physician essaying this plan of counting a rapid pulse the first time, will in all probability fail in his attempt at making an accurate count, but with a little practice on a slower pulse, will very soon acquire the knack of doing so, and be enabled to count every other beat with positive certainty The plan proposed further consists in likening the pulse to the tick of a watch, and imagine a two and fro beat, and as soon as the mind is thus fixed, which will be almost instantaneously, then proceed to count the to or the fro beat, as the case may be, with perfect ease and certainty By placing the watch to the ear, one can demonstrate how easy it is to count every other stroke of the lever, while it is nearly impossible to count every tick of the watch In the plan suggested there is not a single objection, and in practicing it one can count a pulse twice as fast as by the usual way, and at the same time it has the advantage of being very easy and accurate

Obstruction of the Ilium caused by Peritoneal Adhesions—Death—Autopsy —A case of this kind was presented by the same gentleman who read the last paper All details of history and treatment are omitted as not being essential in this review, but a brief report of the symptoms, illustrating the manner of death, along with the pathology, as being sufficiently interesting, is herewith presented D P, a man 30 years of age, married, habits regular, had enjoyed apparent good health Was taken suddenly ill during the night of March 14 of last year with severe pain in the abdomen, opposite the umbilicus, which continued for five or six hours and then subsided, as was supposed, from the effect of remedies used But in spite of treatment, the pain recurred again after a few hours' interval, when it again abated These paroxysms of pain continued with greater or lesser exacerbations and frequency until his death, which occurred four weeks subsequently Soon after the attack he began vomiting, which was very distressing in its early stages, but this soon became passive, with but slight change each day until the final result was reached At times he vomited simply what was swallowed in the form of nourishment, while upon other occasions, especially during the first two weeks, the vomit consisted of stercoraceous matter For three weeks his temperature did not exceed 100° F, and most of the time it was nearly normal His pulse ranged between 75 and 85 per minute, which grew gradually weaker The last few days the heart's action was so weak and rapid that the pulse was scarcely perceptible at the wrist There was no tympanites, and but slight tenderness when pressure was made over the abdomen, which at times was quite flat and had a doughy feel When he suffered acute pain, the abdomen would become as hard as a contracting uterus in labor, although there was no muscular rigidity or increase of tenderness, and during the intervals, gently kneading the abdomen would induce the rigidity without provoking additional suffering Especially was this noticeable during the last days of the patient's illness, at which time he was much exhausted, his voice was husky, his skin lead colored, and he presented a generally pinched and emaciated appearance The pains also had lost their severe character, and instead, a sense of suffocation was produced, with diffused numbness, and, as he described his symptoms, he felt as though his stomach was being crowded up under his ribs Throughout his entire illness, with the exception of one day, there was not a voluntary passage from his bowels, although previously he had been regular in this respect By the aid of injections and laxatives this difficulty was in part overcome, in his having a successful passage every day or two of a few little elongated lumps of fecal matter, never exceeding three eighths of an inch in diameter At the end of the third week a slight diarrhœa set in for one day only Even in the absence of pain, he was restless and fatigued and slept but little, never to exceed an hour at a time Treatment was of little avail Opium and chloroform were the principal remedies used, they retarded vomiting and pain, but controlled neither Many other medicines were tried, and the case was treated from every possible standpoint of theory except surgical procedure, and there seemed to be no time when an operation would have been justifiable The utility of rectal alimentation gave evidence of beneficial results In consultation with Dr J D Skeer and Dr C W Earle, each of these gentlemen agreed as to the early diagnosis, namely mechanical obstruction of the small intestines, probably at the ileo cœcal junction, but of its exact character they opined not A favorable prognosis was not entertained, and he died on the twenty-eighth day

The autopsy revealed many peritoneal adhesions and bands of long standing, they were very firm, tying and binding the convolutions of the ileum down into the pelvic cavity One of these constricting bands was firmly attached to the anterior abdominal wall, half way between the umbilicus and the middle of Poupart's ligament on the right side At its attachment it was about one-fourth of an inch thick, and three-fourths of an inch wide It then spread downward to the left side of the pelvic cavity, where it was firmly adherent from the brim far down upon the inner wall, becoming fasciculated, and embracing the folds of the ileum between the fasciculi, furnishing a band that held the larger mass of the small intestines in the abdominal cavity It was necessary to divide these bands in several places on the pelvic wall before the intestines could be lifted out of the space they occupied, and when they were detached they were all tied together by bands of peritoneal adhesions, which did not present the slightest evidence of recent inflammation The bowel was inflamed, and very much softened for a distance of about four feet, which extended to within twelve or fourteen inches of the ileo cœcal junction There was no evidence of previously existing disease of the ileum It was uniform in thickness, although its caliber was contracted, the smallest place was about three eighths of an inch in diameter The intestines were so agglutinated at their sides, and bound down by cross bands, that peristaltic action must have ceased long ago Nature can accommodate herself to many unnatural conditions, but it is remarkable the functions of the bowels were performed so long and so well in this case Eight years ago the writer treated this patient for typhoid fever of a moderately severe form, which resulted in his recovery The most interesting point relating to the case, as it now appears, is, that at that time the patient had a moderate amount of peritonitis, which in all probability gave rise to the adhesions which subsequently and unquestionably caused death

STATE MEDICINE

MICHIGAN STATE BOARD OF HEALTH.

[Reported for the Journal of the American Medical Association]

At the quarterly meeting of the State Board of Health of Michigan, held January 13, 1885, at its office in Lansing, the following-named members were present Drs Avery, Lyster, Hazlewood, Tyler and Baker

The Secretary mentioned that during the quarter a successful sanitary convention had been held in East Saginaw, and that steps had been taken by citizens of Lansing to hold a sanitary convention in Lansing in March next (March 19 and 20, 1885) The Secretary had attended, as delegate of the Board, two meetings of Conferences of State Boards of Health—one in St Louis, Mo, in October, and one in Washington, D C, in December In the former he was chairman of the committee which prepared the report on practical means of preventing the introduction and spread of cholera in this country, which was adopted by the Conference, and also by the American Public Health Association It has been widely published In the Conference at Washington he read a report on the sanitary condition of Michigan and preparations made for meeting the threatened invasion by cholera, and was a member of the committee on best methods of action by the national government to prevent the introduction and spread of cholera

Bound volumes of the Annual Report for the year 1883 had been received from the printers, and this and other documents have been mailed to all health officers in the State, to clerks of cities and of villages, and to mayors of cities and presidents of villages A large number of circulars, in English and in foreign languages, on best means of restricting and preventing certain communicable diseases, had been sent to health officers where contagious diseases were present A large number of Annual Reports, reprints, and circulars have been sent to persons interested in sanitary affairs Blanks for reports of diseases dangerous to public health, with circular of instructions, were sent to all health officers of cities, villages and townships in the State, to the number of 1,390 Another set for reporting communicable diseases in 1884, was sent to the clerks of cities, villages and townships in Michigan. Two copies of a circular relative to diseases in Michigan in 1884, and stamped envelope for reply, have been sent to about one hundred and eighty physicians in Michigan who are regular correspondents of the Board

The Secretary also reported that, since October 7, there had been four outbreaks of cheese poisoning in Michigan—at Jackson, Homer, Flushing and Lansing During the past quarter there had been three cases of small pox, with one death, at South Boardman, Kaskaskia county, the infection of which is supposed to have been brought from Denver, Colorado

Many outbreaks of diphtheria had been reported during the quarter During the serious outbreak in Kalamazoo, from July 20 to December 20, 1884, over 260 cases and 54 deaths from diphtheria were reported to the Kalamazoo Board of Health The health officer of Kalamazoo reported, December 22, 1884, that the epidemic in that city appeared to be nearly or quite at an end, but since that report, *and following the thaw*, there was a sudden increase of diphtheria in Kalamazoo, 20 cases being reported in one week New cases of diphtheria continue to be reported from Detroit at the rate of about 35 to 45 per week The total number of cases in Detroit for the year 1884, as collated from the weekly reports of the health officer, is over 1,300, and the number of deaths for the same period is over 340

The secretary's reports of the Conferences of State Boards of Health held at St Louis in October, and at Washington in December, were ordered to be printed in the Annual Report for 1885

A letter from a gentleman in Bronson, in regard to sickness in his family, supposed to be due to arsenic in the wall paper of the house, was read by the secretary, and specimens of the paper were shown The paper was sent to Prof Vaughan, of Ann Arbor, to have it tested for arsenic

Dr Avery, as chairman of the special committee appointed at the request of the State Board of Corrections and Charities, to examine the State House of Correction at Ionia, read his report It was accepted, and ordered printed in the Annual Report for 1885, and copies were ordered sent to the committees on Public Health of the Legislature, and to the Board of Corrections and Charities The committee found the sewerage, plumbing and ventilation in bad condition The sewer leading from that part of the building where the offices are situated, empties into the basement instead of into the catch basin near the barn—that is, it empties at the wrong end There is no provision for flushing the sewer except by means of hose and hydrant The sewer has become filled up with garbage and refuse A new sewer should be laid, leading from the basement of the office building to the main sewer, for which there is ample fall The plumbing connecting the kitchen, wash-room, bath room and water-closets with this sewer is in wretched condition, and should be replaced with new, with properly ventilated soil-pipes and approved traps The committee consider the shafts designed to ventilate the cells as an admirable arrangement for the equal distribution of poisonous gases through all the cells, but can hardly call it ventilation In the shoe shops an attempt had been made to carry out the recommendations of a former committee of this Board, by placing steam coils in the few shafts put in when the shops were built, but the coils were not heated, and so were of no aid to ventilation No attempt to ventilate the other shops had ever been made In the cigar shop the odor of tobacco and foul air was simply intolerable, the committee noted the pallid faces of nearly all of the seventy-five or one hundred young men and boys in this room The water-closet of each shop has defective plumbing, and is unventilated, so that foul odors arising from them are permitted to enter the shops The ventilating flues leading from the hospital to the attic, are imperfect, and are not heated The committee recommended the prompt remedying of the evils by the employment of a competent architect to make plans and specifications, and to superintend the details of the work

Dr Jerome Walker's text-book, "Anatomy, Physiology and Hygiene," was approved by the Board according to law, for use in the schools of Michigan

The following-named text-books were conditionally approved under a resolution of the Board, passed July 8, 1884, which stated that, because of errors and omissions, until such errors should be corrected, the books named could not receive the entire approval of the Board

"Hooker's New Physiology, designed as a Text Book for Institutions of Learning By Worthington Hooker, M D Revised by J A Sewall, M D With a chapter on Alcohol and Narcotics 1884"

"A First Book in Physiology, for the Use of Schools An Introduction to the Larger Work by the same Author By Worthington Hooker, M D"

HEALTH IN MICHIGAN, JANUARY, 1885.

Reports to the State Board of Health, Lansing, by observers in different parts of the State, show the diseases which caused the most sickness in Michigan during the month of January (four weeks ending Jan 31), 1885, as follows

Number of weekly reports received, 171		*For preceding month*
Diseases arranged in order of greatest prevalance	*Per cent of reports stating presence of disease*	*Per cent of reports stating presence of disease*
Neuralgia	82	72
Rheumatism	75	77
Bronchitis	74	70
Tonsilitis	65	56
Consumption of lungs	61	54
Influenza	60	52
Fever, intermittent	50	53
Pneumonia	46	34
Erysipelas	37	25
Remittent fever	33	40
Diarrhœa	26	36
Inflammation of kidney	22	23
Whooping cough	18	17
Diphtheria	16	19
Inflammation of bowels	16	17
Scarlet fever	16	15
Membranous croup	14	10
Typho malarial fever	13	21
Typhoid fever (enteric)	11	16
Cerebro spinal meningitis	11	9
Inflammation of brain	9	5
Dysentery	6	6
Cholera morbus	5	6
Measles	4	4
Puerperal fever	4	5
Cholera infantum	2	3

For the month of January, 1885, compared with the preceding month, the reports indicate that pneumonia, erysipelas, neuralgia, tonsilitis, influenza and consumption of the lungs increased, and that diarrhœa, typho malarial fever and remittent fever decreased in prevalence

Compared with the average for the month of January in the seven years, 1879–1885, neuralgia and erysipelas were more prevalent, and pneumonia, diphtheria, intermittent fever, measles, dysentery, remittent fever and scarlet fever, were less prevalent in the month of January, 1885

For the month of January, 1885, compared with the average of corresponding months for the seven years, 1879–1885, the temperature was lower, the absolute humidity and the day and the night ozone were less, and the relative humidity was more

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of January, 1885, at forty-two places, namely Attica, Boardman, Bloomingdale, Charlevoix, Chocolay tp, Dansville, Detroit, Delhi, Delhi tp, East Saginaw, Gaines, Gaines tp, Grand Rapids, Genoa, Harrisville, Handy, Hancock, Hastings, Hudson, Ingham tp , Imlay, Ishpeming, Kalamazoo, Lyons, Negaunee, Novi, Novi tp , Orleans, Oscoda, Oshteneo tp , Owosso, Pierson tp , Plymouth, Port Crescent, Quincy, South Boardman, Sand Beach, Thornville, Taylor tp , Watervleit, White Oak and Wyandotte, scarlet fever in thirty seven places Albion, Algonac, Bellaire, Belvidere tp , Clam Lake tp , Charlevoix, Detroit, East Saginaw, Faun River, Grand Rapids, Genesee, Highland, Homer, Ida, Kalamazoo, Leland tp , Lowell, Manistee, Muskegon, Negaunee, North Muskegon, North Lansing, Pontiac, Pierson, Pierson tp , Quincy, Sault Ste Marie, St Louis, South Haven, Sears, Sheridan, Thornville, Watervleit, Wheatfield, Whitehall and Westphalia, measles at four places Detroit, East Saginaw, Grand Rapids and Hopkins tp ,—and small pox at South Boardman HENRY B BAKER, *Secretary*

Lansing, February 5, 1885

FOREIGN CORRESPONDENCE

BERLIN LETTER.

BERLIN, GERMANY, Jan 10, 1885

MR EDITOR —The method of cultivating bacteria by the solid culture media, which is at present so largely occupying the attention of bacteriologists, particularly on the continent, is deserving of especial attention I feel the more liberty to say this now, and to explain the method a little in detail, because, like many others of my countrymen, I had a prejudice in favor of liquid cultures, especially when made in hermetically sealed bulbs, which I had used for several years previous to my coming to Germany I soon saw, however, that I had not fully understood the method of solid cultures, and that my objections, chiefly of the danger of the entrance of impurities, were more theoretical than practical, and that this method, on the other hand, does possess many special advantages,—for in no other way can a mixture of different forms of germs be so easily, quickly, and surely separated, and more especially, many forms of germs produce such peculiar appearances in their growth in solid cultures as to always distinguish them from all others

The materials most in use for solid culture media are gelatine (as "flesh-peptone-gelatine"), blood-serum, and aga-aga Probably most in use is the gelatine solution, which is prepared as follows

Half a pound (0 25 kilo) of fresh lean meat (beef or mutton) is finely chopped, and to it is added a pint (500 c c) of distilled water, the mixture remaining in a cool place for twelve to twenty-four hours It is then strained through fine linen gauze, the mass being pressed to extract all the liquid, which appears as a reddish-bloody fluid To this pint of "flesh-water" in a clean flask, is added 75 grains (5 grammes) of peptone, 30 grains (2 grammes) of common salt, and from 1 to 2 ounces (30 to 60 grammes) of fine gelatine, and to the flask is fitted a cotton-wool stopper The mixture should then stand for a half hour to allow the gelatine to swell up, and as gelatine has an acid reaction, enough sodic carbonate ($Na_2 CO_3$) should be added, to make the solution neutral or very slightly alkaline, because most germs do not grow in an acid solution The solution is then placed in a Koch's steam sterilizer and cooked for an hour This is an apparatus made of tin and covered with thick felt, by which the articles placed inside are exposed to the direct action of a large volume of steam

The solution is then filtered hot through filter-paper, and it comes through clear and yellow This is best done by means of a hot water filter, which keeps the gelatine thoroughly melted all the time If this, however, is not at hand, the ordinary glass filter tunnel and its contents may be warmed by carefully and quickly throwing against it the flame of a Bunsen-burner or a spirit lamp It should be emphasized that the filter and filter-paper, and the test-tubes, together with all the other apparatus used in the process, should be thoroughly sterilized in a sterilizing oven to a temperature of 300° F (150° C) for at least ten minutes

The next process is to fill the test-tubes, which have been fitted with a cotton wool stopper and sterilized as above described They are filled for about a quarter or a third of their length and are cooked for fifteen minutes in the steam sterilizer, when they are probably in a condition for use, but to make sure, it is better to cook them three days for fifteen minutes each day

Next week I will write you about vaccinating the cultures N

BERLIN, GERMANY, Jan 20, 1885

MR EDITOR —There are two ways of using the gelatine which has been prepared according to the method I described last week, viz plate cultures and tube cultures

(*a*) For plate cultures, which are especially useful to separate different forms of germs in a mixture, there is necessary an apparatus consisting of two bell-jars, a glass-plate, and glass bridges Of the bell-jars, which are about seven inches in diameter and two inches deep, one should be a trifle larger and a trifle less deep, to set over the other as a cover The glass plate should be about six inches long and four inches wide, but this should be regulated by the size of the table to one's microscope stand, for we must be able to examine every portion of it by the microscope The glass bridges should be such as to elevate the plate about one-quarter of an inch above the bottom of the bell-jar All of this, like everything, as I said before, should be sterilized in a sterilizing oven by exposure for ten or fifteen minutes to a temperature of about 300° F (150°C), and then it is put together to cool, the plate resting on the bridges in the lower bell-jar, which is covered by the larger one

When cold it is so placed that the plate is exactly horizontal, and for this purpose especial levelers are sold, which though convenient, are not absolutely necessary The cover being removed, gelatine melted in a test tube is poured over the plate so that when cold, there is a layer about an eighth of an inch thick The cover is replaced and all is set aside for the gelatime to harden when it is ready for vaccination, which may be done in two ways (a) Vaccination of the entire surface This is accomplished by making a *very dilute* mixture containing the several germs it is desired to separate, and pouring this over the surface of the gelatine (b) Vaccination in stripes This is accomplished by dipping a platinum wire sterilized by heat into the *very* dilute mixture of germs and gently scratching the surface of the gelatine This is repeated making the rows from a quarter to a half inch apart N B It is of great advantage to apply moistened filter paper to the inner surface of the cover to make a moist chamber Also, N B It is almost impossible to make too dilute a mixture, and beginners make a great mistake in this respect Theoretically it should be so weak that any one germ of a kind drops in a place and another at a little distance and so on This apparatus being kept at a temperature varying according to the cultivation, the plate shows, after twelve to forty eight hours, little points which grow and some of which may be distinguished from the rest By using these as seed in successive fractional cultures, the last becomes quite clean, when it may be transferred to a test tube culture

(*b*) The test tube culture is made in test tubes filled as above described, about one-third of their length and stopped by cotton wool

The vaccination is made by taking seed on a platinum wire sterilized by heat and thrusting it into the gelatine about an inch In their growth many germs build characteristic forms

Although no books give the information, it is to be noted that in making the vaccination, the test tube should be held inclined and with the *mouth* downwards when open, so that no outside germs may fall in from the air

For certain culture gelatine has the disadvantage of melting at a comparatively low degree, and when a higher one is necessary aga aga or blood serum is used

Aga aga is prepared like gelatine

Blood serum is prepared by filling sterilized test tubes one-third deep with clear serum from the blood of an ox or sheep, and cooking in the steam sterilizer at 135° F (58° C), for two or three hours During this time the test tube should be inclined at an angle of 45° to allow the serum to solidify in this position, which gives a much larger surface in the test tube for vaccination (N B Aga aga may also be thus prepared) The heating should be repeated for five days, when it is ready for vaccination with platinum wire

The solid cultures have many advantages, and I am glad if I have been able to clear it up to a few readers to whom it has been a mystery N

Berlin, Jan 20, 1885

The following interesting case came to Prof Frankel's clinic The man, some years ago, was affected with paralysis of the external rectus of the left side, which gradually disappeared under the use of iodide of potassium and mercury At present the patient has great difficulty in swallowing, and examination shows paralysis of the palato-glossus, palato-pharyngeus, tensor palati, crico-arytænoideus, post lower pharyngeal muscle, and paresis of the œsophagus on the left side Ten days' treatment with iodide of potassium has produced a marked improvement The character of the paralysis points to an affection within the cranium of the glosso-pharyngeal and pneumogastric nerves, and possibly of the accessorius on the left side

Placenta prævia was discussed by Dr Winter at the last meeting of the Obstetrical and Gynæcological Society At the same time Dr Schroeder demonstrated a frozen, complete longitudinal section of a woman at full term of pregnancy, with fœtus *in utero*, and the cervix just commencing to dilate This is the second section of the kind ever attempted, the first being made by Waldeyer The question of the proper treatment of placenta prævia is engaging very considerable attention, and from its discussion much good has resulted, both in regard to the mother and in regard to the child The first evidence of a more logical appreciation of the condition, of real, genuine, practical advance, was in the less frequent use of the tampon, which was a fecund source of infection, and which was merely tentative in *any* result—for it rarely worked for good, but generally for evil It has no effect upon the condition itself, and in its application much valuable time was lost If the placenta cannot be separated from its marginal attachments, or if it be a real placenta centralis, if the danger be imminent, the general verdict seems to be that we should turn by the bimanual method (Braxton Hicks), plunge through the placenta, draw down a leg, and tampon with it and with the breech of the child *Then wait for spontaneous delivery Do not extract at once, but wait* Hofmeier's and Behm's cases all confirm this view Just as soon as the cervix will permit the introduction of one or two fingers, rupture the membranes and turn With the whole hand in the vagina, this is as easily done by the bimanual method as it is with the whole hand in the uterus, and nothing is gained by waiting Naturally, there will be a strong hæmorrhage when the placenta centralis is ruptured—an alarming one, which might occasion fright, but this is immediately arrested by drawing down the leg I would like to urge this practice upon my professional friends in America The *tampon*, except in rare instances, is a nasty, dangerous appliance, and cannot possibly result in good I have seen much of this method of turning, and its results have been uniformly excellent

Dr Veit very kindly invited me to see some plastic work at his private hospital a few days ago He used the continuous stitch in a perineoplastic operation (mutton gut soaked in carbolic solution and hardened in alcohol) and painted the seam over with collodion At my suggestion, he used the same stitch and the same kind of gut in an operation upon the cervix (a so-called Emmet) I remembered that Dr Marcy, of Boston, had spoken to me of the feasibility of this plan in treating lacerations of the cervix, and I was very glad to have so early an opportunity of testing it It seems to me that it subserves an admirable purpose, it is less irritating and does away entirely with the subsequent necessity of removing the stitches, which one *must* do when silver-wire sutures have been used Dr Bergmann exhibited a man at his clinic from whom he had removed about four inches of intestine (colon) some time before The same day he opened the abdomen for the purpose of cutting out an extensive cancerous growth It was found to involve the spleen, the abdominal aorta, the intestine (duodenum and colon) and the stomach It was carefully dissected out, all vessels tied, the pyloric orifice of the stomach and about three inches of bowel were clamped and amputated The man was extremely anæmic when placed on the table, and during the operation, which lasted nearly three hours, every known device was made use of to keep him alive The operation was successful as a piece of surgical handiwork, but the patient did not live to enjoy it

It is said that Dr Lustgarten, of Vienna, while working in the laboratory of Prof Wiegand, at Leipsic, discovered a syphilitic *bacillus*, or *microbe*, which had the peculiarity of never being seen outside of its cell It is also said that Koch has verified these investigations Germany is crazed on the subject of bacteria Almost every one has a cultivating room, and the *fons et origo* of every known disease will probably, sooner or later, be represented by one of these little vibratory nothings If it be true that the bacillus of syphilis is never seen outside its cell, this may account for the development of symptoms in many cases The virus is deposited and remains harmless until some force shall free it from its imprisonment As scientific inquiries, these discoveries will always be of interest to the pathologist, but I cannot see that the contagium vivum theory and the known existence of bacilli, have done much for therapeutics

Prof Frerichs made extended experiments with the internal administration of germicides—carbolic acid, bichloride mercury, etc ,—in diseases of this kind, but without observing any good results But sound physiological therapeusis is advancing, every day adds something to its armamentarium, so that with a clear pathology we may hope for an equally clear plan of treatment I called the attention of Dr Martin to the recent addresses of Lausen Tait, "American Notes," in which he comments with some severity upon Listerism in general, and upon the German fashion of using the mercuric bichloride in particular I hope soon to give Dr Martin's views upon this matter Since he began strict antiseptic detail, out of 130 ovariotomies, he has lost only *one* from sepsis, and out of 66 laparotomies for myoma, his mortality has been 10 per cent His private hospital (thirty beds), probably the largest and best-equipped in Europe, is built upon the most approved antiseptic plans His room for plastic operations is entirely distinct from his room for laparotomies And not a single appliance that is used in the one is allowed to be used in the other No basins are used in the room devoted to abdominal surgery, and all the water used there is previously boiled I told Dr Martin that I believed that some cases recorded as "death from shock," might, with reason, be stated to be "death from a reduction of temperature," and that I was astonished to see so little provision made to keep the bodily temperature up He said that he did not believe that this had anything to do with the fatal results The only thing necessary was to ward off sepsis I hardly think this opinion will find general acceptance I believe it to be a most important thing to prevent a sudden lowering of temperature It may or may not influence the result to allow the contents of cystic degenerations to pour over the person of the patient, but it is certainly *neater* to use the *trocar*, and, so far as my investigations show, a safer plan as well

As a rule, American students of gynæcology in Berlin spend so little time here that they cannot watch cases and follow results They are, consequently, unable to express any decided or correct opinion of the value of the work done This can only be accomplished by remaining six months—or, better, a year—in one of the hospitals, and by familiarizing one's self with all the details of out-door and in-door service H R B

DOMESTIC CORRESPONDENCE.

HAMMOND, WIS , February 6, 1885

EDITOR JOURNAL AMERICAN MEDICAL ASSOCIATION .

Dear Sir—In a case of labor occurring in my practice, Saturday, January 31, 1885, the following facts seem sufficiently interesting for record 1st The age of the patient being 44 years, October 17, 1884, this was her first pregnancy, delivery by forceps, slight perineal rupture, patient doing finely so far She is a Norwegian, and here is the second interesting fact Her first husband, with whom she lived nearly twenty years, died some two and a half years since He was a leper, and the first and only case of leprosy I ever saw, and, so far as I am aware, the second case ever known in the State, the first authenticated case being under care of Dr Samuel C Johnson, of Hudson, Wis , now a member of the State Board of Health There *may have been other cases*, but these two are all I have any knowledge of, notwithstanding I am living in the very center of what the newspapers called, only a few months since, the " Leprosy infected district of the Northwest "

E L BOOTHBY

HUMANIZED OR BOVINE VIRUS IN VACCINATION.

EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

I have been much interested in reading the report of the German Commission appointed to investigate this important question Careful clinical observation satisfied me years since that humanized virus has equal, if not greater protective power than bovine virus, that it is attended with less severe constitutional disturbance, and produces fewer ugly pustules, regardless of the agency whence the bovine virus came

The syphilitic scare has no terrors for me, although a London enthusiast appears to have settled affirmatively the question of its possibility With ordinary care it is practically impossible to convey such taint by means of vaccine lymph , while with extraordinary caution in securing healthy virus the danger of conveying any disease other than the one for which you vaccinate, has, in my judgment, no foundation in fact

It is true that latent impurity in the system may become manifest by vaccine fever So far, however, as my experience has enabled me to determine, bovine lymph is more productive of such development than humanized lymph—certainly not an argument in its favor Compulsory vaccination is becoming a recognized duty This being true, choice of virus should be optional with the vaccinated To determine satisfactorily the comparative value of humanized or bovine virus may require time and care That a great nation like Germany has considered it of sufficient importance to appoint a commission of learned men to investigate this matter, speaks much for the interest the nation takes in the welfare of her people and should stimulate to similar investigation in our own country

S B Chase

Osage, Iowa, Feb 4, 1885

BOOK REVIEWS

A Text Book of Hygiene By George H Rohe, M D Cloth, 324 pages Baltimore Thomas & Evans

This book is a valuable compilation of the most important matters relating to the subject of hygiene It is comprehensive in scope, well condensed, clear in style, and abundantly supplied with references A work of this sort is necessary and will undoubtedly be improved by future editions In the consideration of the matter of ventilation the author is somewhat at fault He assumes the general principle that foul air rises, and recommends rules for ventilation accordingly The fact is, that in artificially heated buildings of all classes, public as well as private, the middle layer of air is that containing the least impurity and the best adapted as to temperature and humidity to the use of the inhabitants Impurities that rise can not be dangerous, as they occupy an inaccessible part of the room, while the denser impurities and cold air resulting from the loss of heat by connection as well as the leakage from without through the joints of the building, settle to the bottom This is the stratum that should be removed by ventilation through shafts, provided, if necessary, with heating apparatus to produce an upward draught Farther, the common plan of heating with small volumes of super-heated air, thus constantly diluting the atmosphere of the apartment with a thin stream of dry, hot air, often contaminated with the products of combustion, is one that should be condemned The hot air supplied should be in large volume and only sufficiently above the desired temperature to rise readily, and so by displacement remove the vitiated air of the room which should find a ready egress through the ventilating shafts, opening as before indicated at the lower part of the room

In the consideration of the subject of sewerage the author presents much valuable matter He particularly condemns the privy vault and recommends earth closets or the pail system in cases where a water carriage system is impracticable He is a strong advocate of the separate system, but as the combined, *i e* , that in which house drainage and surface water are both carried in the same pipes, which must be of large size, is the one now in general use, it is best to consider the means that may be employed for diminishing its evils to the minimum

The essentials of a combined system of sewerage are these First, a *complete* removal by gravity of all solids and liquids to a place of *safety* The proper place is a point below the level of the town, sufficiently remote from it and so arranged as to prevent an accumulation of the filth Second, the *complete* removal by ventilation of the sewer and all its branches, of all noxious gases to a place of *safety* The proper place is above the tops of the houses where the gases can be carried away by the wind or sufficiently diluted with pure air before being breathed by the inhabitants

These rules are constantly violated The practical plan of most sewer builders is to get the filth out of sight and to allow the gases to take care of themselves

In this digression we have quite forgotten Dr Rohe's book We have read it through, feel well repayed for the trouble, and justified in recommending it to the general and professional reader

C E W

Comparative Physiology and Psychology By S V Clevenger, M D , late Pathologist County Insane Asylum, Chicago , Member of the American Neurological Association, American Microscopical Society, American Electrical Society, American Association for the Advancement of Science, Chicago Medical Society, ex Meteorologist U S , Signal Service, Collaborator of the American Journal of Neurology and Psychiatry , American Journal of Nervous and Mental Disease, and American Naturalist

This new work includes eleven years labor in the fields its title indicates, and contains much original matter The intention of the author, we judge, is to elaborate a mental science to accord with recent physiological and anatomical research, which has been well done by him The reasoning is profound and appeals directly to experience As the author stated in his introductory remarks, the method proposed to examine the mind is an extension of Herbert Spencer's principles, and we believe is in accordance with the views of the majority of modern scientists We are pleased to notice a number of chemical formulæ in the manner in which they are arranged, as for instance, substituting CO which appears on the ninth line from the top of page 10, to denote carbonic dioxide So, too, regarding H_2O for sulphur, as it appears in the fourth line from the top of page 48 A number of similar illustrations might be cited

We trust the editor will appreciate a kindly suggestion of correcting a number of misspelled words, pertaining to what would appear possibly as being tautological in oft repeating the word rhythmical, as is found in the fifteenth line from the top of page 17, also rhythmic, in the twentieth line of this page, and again in the fourth line from top of page 31, as well as in a number of succeeding pages, and rhythm as found from the third line of the bottom of page 34 These may be typographical errors, however, simple in themselves, which is frequently the case in the first edition of any work, yet easily corrected by the reader But Dr Clevenger's reputation as a scientist will be satisfactory guarantee of the value of the book containing 257 pages, and we therefore commend it most cordially to our readers The printer and publisher have done their part of the work in good style It is also fully illustrated, the well known house of Jansen, McClurg & Co , of Chicago, being the publishers *Price $2 00* L H M

A Manual of Bandaging , Adapted for Self Instruction By C Henri Leonard, a m , m d , Professor of Diseases of Women, etc , Michigan College of Medicine Second Edition Detroit Pp 159 Price, $1 50

This is a useless little volume since it contains much discarded rubbish of obsolete names and the terminology of a past generation It is full of references to "charpie" the "plumasseau," "Gateau," "boulette," "bourdounet," "pelote," "cataplasma carbonis," and other strange and barbaric things which modern surgery has no use for It is evident enough where the writer's mistake occurred In compiling his "manual" he used one or two little works on bandaging which are still extant upon the shelves of older practitioners The book has every appearance of having been made to order by one who knew little or nothing about the subject A little more practical experience would have taught him that more than half his elaborate bandages with their queer long names would not work in practice, in fact have been discarded long ago, if they ever were in use It may be that they are still popular in Detroit, but not in the rest of the world How singular that such a book should be printed, when we have had for several years the excellent works of Gamgee and so many others on bandaging and dressing of wounds and fractures! Since it is nothing but a compilation, why not have compiled something from an enlightened source? The preface informs us that the work has been used in medical colleges, but there must be some mistake about this The student who should make this manual his authority would be a veritable Rip Van Winkle when he emerged from college It is also well known that in the United States *all* medical professors are men of thorough education and high standing, who could not make the mistake of supposing that this book would be of any use to the present generation

E W A

Surgical Handicraft A Manual of Surgical Manipulations, Minor Surgery and other Matters Connected with the Work of House Surgeons and Surgical Dressers By Walter Pye, f r c s Philadelphia P Blakiston Son & Co Cloth, 544 pp , 208 woodcuts Price, $5

This volume will be of value as a book of reference It treats of a numberless variety of matters coming within the province of the hospital house surgeon and general practitioner Every man has his own methods and those are best in his hands with which he is most familiar, still suggestions are always useful and amendments always in order Each reader will probably wish to make some alteration in the book, for it treats of those matters of which every one has practical knowledge Your reviewer, for instance, would like to suggest that in his experience the incorporation of metallic strips into plaster splints does not add permanent strength to the splint, for it divides it up into layers which make the splint break down quicker than a simple one made of selected plaster The important point in this connection which is omitted by the author, as well as practically ignored by most surgeons, is that the plaster used should be of the best Old plaster that has been for months in a drug store and has absorbed a large quantity of atmospheric moisture, not only sets slowly but makes a weak, crumbling splint inferior to one from the freshly prepared article Heating in an oven *does not* entirely restore the quality of old plaster

The book is supplied with marginal notes and portions of it might be conveniently used as a text book for medical students in minor surgery, while the entire work is worthy of a place in any library

C E W

Handbook of Ophthalmic Science and Practice By Henry E Juler, f r c s , Junior Ophthalmic Surgeon to St Mary's Hospital Senior Assistant Surgeon and Pathologist to the Royal Westminster Ophthalmic Hospital, Moorfields, *with one hundred and twenty-five illustrations* Published by Henry C Lea's Son & Co For sale by Jansen, McClurg & Co Price, in leather, $5 50

Although there are some excellent additions by Dr Chas A Oliver, the American editor, yet taken as a whole it is in no wise superior to many others already in the field, and in some respects much inferior There is a great number of illustrations—one hundred and twenty five—many of which are wholly uncalled for, and occupy space that could very well have been better utilized What advantage to figure an entire set of Bowman's probes, a lachrymal syringe or a lid retractor?

The chromo-lithographic plates are, artistically considered, beautifully executed, yet those relating to diseases of the cornea and lens would puzzle more than aid a student in forming a diagnosis

On some subjects the author has not kept up with ophthalmic progress No reference is made to Hotz's operation for entropion (Knapp's Archives Ophth , vol 8, p 249) which is far superior to any previously devised Dewecher's method of using jequirity is very briefly given and the author's observation (p 95) that "it does not affect the cornea injuriously" is wholly wrong and apt to lead to injurious consequences Treatment of detachment of the retina is far from being up to date Errors of refractions are fully considered and Dr Oliver gives a description of a new astigmatic disk with an explanation of its use

The mechanical portion is all first-class, as one would expect coming from the house it does, excellent quality of paper and good type L W

A PRACTICAL TREATISE ON FRACTURES AND DISLOCATIONS By FRANK HASTINGS HAMILTON, A B, A M, M D, LL D, late Professor of Surgery, Bellevue Hospital College, etc, etc Seventh American edition Philadelphia H C Lea's, Sons & Co 1884

The seventh edition of this standard work is larger and better than any which have preceded it In his latest preface Professor Hamilton claims to have embodied in the new edition all the recent contributions to this wide subject which has now quite an extensive literature, but which was so little written about once that the first edition (1859) declared, "The English language does not at this moment contain a single complete treatise on fractures and dislocations"

Although it is literally true, perhaps, that there was no existing work on both fractures and dislocations, it would be a mistake to suppose that Professor Hamilton's book was a pioneer in this field, for Sir Astley Cooper's classic work on the dislocations must claim that position

That exhaustive work has furnished the basis of all subsequent surgical literature on the same topic, including Hamilton's treatise

A very large number of the engravings are direct copies of those in Cooper, of course, and yet neither this nor any modern treatise has ever reproduced them in a style equal to the originals

Considerable changes have been made in this edition The work of Dr Lewis A Stinson on fractures is one which the author acknowledges to have found of service He also makes especial mention of the original investigations of Dr A Poinsot, of Bordeaux He declares, however, that he attaches less importance than many to the experiments upon the cadaver to determine the mechanism of dislocations and fractures near joints

The value of these experiments is freely acknowledged, and yet with a certain reserve which is half ungenerous This great work, in its latest issue, will command more than ever a position of undisputed authority as the best treatise in any language in the field which it attempts to cover E W A

NOTES ON THE OPIUM HABIT By ASA P MAYLERT, M D Third Edition, Revised and Enlarged New York G P Putnam's Sons, paper, 47 pages

The fundamental cause of the opium habit, aside from the accidents which may arouse it into potent energy, is in the moral nature of the individual Dr Maylert does not take quite as broad a view of the subject as that above suggested, but recognizing the psychical element in the cause eloquently insists on the use of moral measures in the case In fact he recommends that therapeutic agents should be employed to meet the various symptoms that may arise, while the entire confidence of the patient and the gradual diminution of the dose are the prime requisites to success He also considers that the patient should be kept under surveillance for a considerable length of time after the opium is stopped or until the normal degree of self control is reached He is greatly opposed to the sudden entire stopping of the drug as subjecting the patient to dangerous and unnecessary suffering There are, however, well authenticated cases where the drug has been entirely stopped, and an inert substitute, which the patient supposed to be opium, had answered every purpose in allaying the distressing symptoms The success of this stratagem is hardly to be expected in those cases when the protracted use of the drug has produced marked *nutritive* changes in the patient

C E W

MISCELLANEOUS

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, UNITED STATES ARMY, FROM JANUARY 31, 1885, TO FEBRUARY 6, 1885

Waters, Wm E, Major and Surgeon, granted leave of absence for one month (S O 24 Department of the East, Jan 31, 1885)

Taylor, B D, Captain and Assistant Surgeon, granted leave of absence for one month, to take effect between March 15 and April 1, permission to leave Department limits (S O 10, Department of Texas, Jan 26, 1885)

OFFICIAL LIST OF APPOINTMENTS, PROMOTIONS AND CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE, JANUARY 1 TO 31, 1885

Stoner, G W, Surgeon, When relieved to proceed to Washington, D C, for duty as chief of Purveying Division Jan 16, 1885

Benson, J A, Passed Assistant Surgeon When relieved to proceed to Chicago, Ill, for duty Jan 12, 1885

Carmichael, D A, Passed Assistant Surgeon When relieved to proceed to Cairo, Ill, for duty Jan 3, 1885

Ames, R P M, Passed Assistant Surgeon When relieved to proceed to New York, N Y, for duty Jan 14, 1885

Urquhart, F M, Passed Assistant Surgeon To proceed to Norfolk, Va, and assume charge Jan 12, 1885

Brooks, S D, Assistant Surgeon To proceed to Evansville, Ind, and assume charge Jan 14, 1885

Carrington, P M, Assistant Surgeon To report to Surgeon in Charge, St Louis, Mo, for temporary duty Jan 17, 1885

PROMOTION

Stoner, G W, Surgeon Promoted and appointed Surgeon by the Secretary of the Treasury, from January 16, 1885 Jan 14, 1885

APPOINTMENT

Carrington, Paul M, M D, of Georgia, having passed the examination required by the Regulations, was appointed an Assistant Surgeon, by the Secretary of the Treasury, Jan 16, 1885

—THE—

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

Vol IV Chicago, February 21, 1885 No 8

ORIGINAL ARTICLES

FOSSIL TRUSSES

A CLINICAL LECTURE BY E ANDREWS, M D , SENIOR SURGEON OF MERCY HOSPITAL

In every hospital there is apt to be some dark closet which becomes by degrees a sort of museum of rejected apparatus It slowly grows to a small mountain of old instrumental fossils, full of all sorts of broken and discarded trusses, aborted splints, deceased galvanic batteries whose dry cells no longer throb, and patent wooden legs, whose inventors died in poverty, because the legs would not run under the patients, nor the patients run after the legs

My learned friend, Prof D R Y Cobwebs, has been excavating with great enthusiasm in our mountain He declares that these fossils are arranged in regular decennial strata, with the ideas expanded horizontally, and that by the aid of his wonderful new science of comparative instrumentology he can tell the age of every specimen, from the primeval implements of Brainard up to the quaternary appliances of Andrews, Hollister, and Dudley He goes still further and maintains that there is evolution here that our mountain has been developed by a kind of unnatural selection and the survival of the unfittest, so that in its deposits he can find relics of the pet hobbies and cranky experiments of all the surgeons within a hundred miles of this place The great Cuvier from a few fragments of bone restored and pictured the entire form of the extinct Palæotherium It is true his picture proved afterwards to be entirely erroneous, but no matter for that, it was a very learned restoration, so our Prof Cobwebs claims that from a few pads of old fossil trusses, with here a screw and there a buckle, he can depict the progress of past surgical thought just as well as Cuvier did—or didn't—restore the Palæotherium

I can never hope to equal such all embracing learning, but nevertheless I may interest you by showing from his collection a few fossil trusses, and tracing the evolution from their crude forms down through various changes into the modern elegant styles The first man that had a hernia must have learned that he was free from distress only when he kept it reduced, and beyond doubt he resorted to some device to make pressure for that purpose In short, he made a truss The most ancient method which we know anything about was to put a tight belt of rawhide, leather, or cloth, around the hips, and attach to it a thick pad to press upon the hernial ring This primeval invention is still occasionally reproduced Here is a specimen brought in by an old prairie farmer It consists of a thick cowhide belt buckled about the hips, and having attached to it a very large pad stuffed with wool It did him some good in quiet walking, but always slipped to the wrong place under active exertion Besides, the pad is too wide and merely fumbled about the opening without pressing firmly at any one spot The farmer got it up himself by the aid of the village saddler, and it represents, I suppose, the ancient primeval truss of man's first efforts

Here is another specimen, which was excavated from stratum No 2 It is a double truss The ingenious inventor, who was probably a tailor, first made a strong linen belt to buckle around his hips, and attached two pads, one to press on each inguinal ring He seems to have found this, like the farmer's cowhide belt, to be prone to slip upward He therefore sewed on a couple of perineal bands to hold it down This was effectual in one direction, but then it sometimes slipped downward He next sewed on a long pair of suspenders, to pass over the shoulders and hold the belt up Thus was evolved the complicated harness which you here see

Here is another fossil When the art of weaving elastic fabrics containing rubber threads was invented, the inventor of this specimen made a broad belt of the new fabric, and prepared a peculiar elastic pad to attach to it This truss was extensively advertised in the West twenty-five years ago It served a tolerable purpose on many patients, but is now as extinct as the Megatherium The difficulty with all belt trusses for inguinal hernias, is the impossibility of making them hold their position during the varied movements of the body, and the difficulty of making the pad press in firmly at a position where the belt draws nearly straight across the body Woodward, of the United States Army, and other writers strongly condemn them, but still they hold their ground for umbilical hernias, and in that situation they do very well About a hundred years ago an improvement was attempted, by making a steel hoop to lock around the hips and to hold the pad firmly in place Here is an ancient fossil of this sort, which has come down to our times by the power of Prof Cobweb's great principle of the survival of the unfittest This particular specimen was evolved by the village blacksmith, after his brain had been fertilized by the vegetable energies of a neighboring root doctor It consists of a mighty steel cycloid, screwed to a wooden wheel to rest on the back, and carrying a copper pad in front, of the shape and size of a teacup The whole is wound with many layers of rags of most venerable antiquity

Early in the last century the modern plan of steel springs to clasp the body from one side was developed, and, so far as I can trace the history, it appeared first in Scotland The superior security with which this kind of truss held to its position in all movements of the body, soon enabled it to drive the belt trusses out of use A long series of doctors, quacks and cranks took out patents for endless modifications of this style, and some of the improvements were very good From lapse of time the patents have mostly expired, and now all the really important principles are freely used by every manufacturer, hence many varieties of good trusses are in existence

One of the earlier forms is still widely manufactured, and is worn with excellent results by thousands, and being both cheap and efficient it commands a wide sale It consists of a steel spring, bent as in this pattern, and carrying an ovate pad to press upon the inguinal or femoral ring Like all modern trusses of the sort it is applied around the side of the hip between the trochanter and the crest of the ilium, clasping the pad upon the required part Many of those sold here are hand-made by Degenhardt, who deems it important that the spring shall be hammered by hand and given a sort of curve on its axis It is hard tempered, because he claims that the softer tempers usually employed to enable one to modify the curve in fitting on, allow the spring to bend slowly out of shape as it is worn It is covered with leather and chamois skin Thus constructed, this style of truss generally fits well if properly selected, and is very cheap All leather covered trusses, however, lack durability, for the sweat rots the leather and rusts the spring, causing it to break after a few years and necessitating a new one This form is a favorite with the Germans To render them more durable some manufacturers make the pad of celluloid, and cover the spring with the same This gives greater durability, but increases the price materially Figures 1 and 2 give an idea of the general form

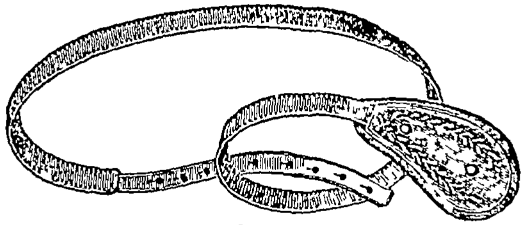


Fig 1

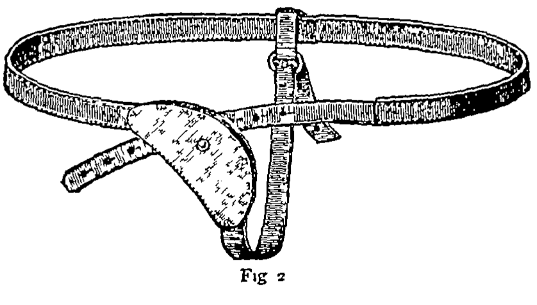


Fig 2

Many years ago a class of trusses sprang up, one of which was called the Hull truss (Fig 3)

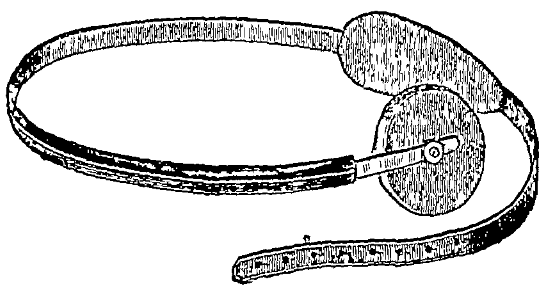


Fig 3

The spring was a segment of straight hoop of steel, not being given the composite curve, and the pad was too broad and flat, preventing the pressure from being concentrated at the desirable point It is gone to the land of fossils

Some twenty five years ago appeared the first hard-rubber truss, sold at the East under the name of Riggs' Truss, and at the West, named after one Seeley The spring had a single curve, like the preceding one, and was made long enough to reach across the middle line of the body and compress the side opposite the one clasped by the instrument The spring was composed of a band of steel, covered with polished hard rubber, and could be altered in form somewhat by heating the rubber and bending it outward or inward The pad was a marvel of foolish ingenuity It consisted of a cross of metal, each arm of which carried a little ball of hard rubber These four balls were applied around the inguinal ring, leaving the centre unsupported The astute inventor explained that these balls would draw the ring together and thus close it up The absurdity of the thing seems to have been too much for the truss to hold, for the manufacturers soon changed the form of the pad and substituted one of more ordinary shape Thus improved, the instrument did fairly good work in a great many cases, but did not fit as well as those shown in Figs 1 and 2, yet it had a considerable sale on account of its power to resist the effects of perspiration and of its consequent durability They are now nearly gone out of use, and must be classed with the fossil trusses The introduction of celluloid into the manufacture of trusses hastened the exit of the rubber instrument The pleasant pink color of the celluloid used makes it a favorite material, and as its use is not limited to any one form of truss, it can be had in various forms The springs and pads are made of steel, covered with celluloid, which protects the metal from perspiration and rust It has been charged that celluloid, being partly composed of gun cotton, will explode and blow to atoms any shop or store where they may happen to be set on fire This is an error Celluloid will not explode If I take this broken truss and touch the end of it to the flame, you see it merely burns freely, like a small torch, but shows no detonating qualities This class of instruments is sold in Chicago by E H Sargent & Co As the celluloid may be applied to almost any form of instrument, its use in the future will not constitute a particular species of truss, but rather a good method of covering various trusses, so as to exclude the perspiration and secure durability

A very excellent instrument is furnished by the United States government to ruptured soldiers It is made in Chicago by Dr A H Parker, under the trade name of the "Common Sense Truss," and extensively sold to patients (See Fig 4)

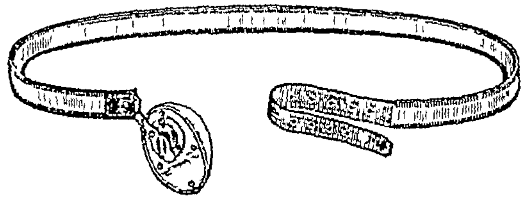


Fig 4

It consists of a steel spring, covered with a strong woven sheath, which is generally silk The sheath terminates in the usual leather strap to fasten in front The pad is of ivory or other smooth material and carried on a short arm, which can be set in different directions so as to fit the patient and change the instrument for use either with a right or a left hernia The pad is articulated with a ball and socket joint, fixed with a set-screw The temper of the steel admits of being bent to fit the form without breaking

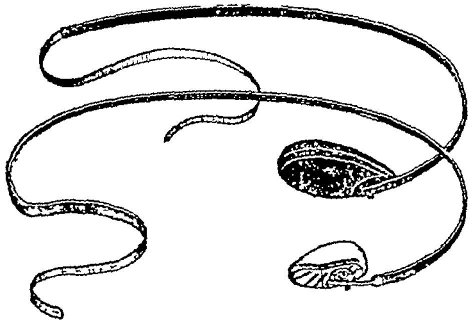
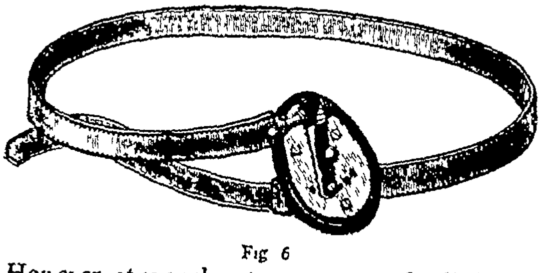


Fig 5

The length of the spring is somewhat greater than in most trusses as shown in Fig 5, where the upper one is of the common kind The increased length of the lower one fixes it more steadily on the hips It is a very excellent truss

Sharp & Smith sell largely a truss which pleases many patients It has a good steel spring like nearly all the trusses now in use, and the pad is attached to it by a revolving ratchet bar to enable the pad to be set in or out at pleasure The other end of the bar is secured to the pad by a screw and a dowel-pin, which permits of other changes of position (See *Fig 6*)



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5 In fitting peculiar cases, the minor points come to the surface, and are briefly these A person who sweats copiously destroys woven and leather covers, and rusts steel springs rapidly Celluloid covers last such cases longer The pad should be proportioned to the size of the ring, not plunging into it like a plug, nor spreading all around it like a flat wheel Perineal bands are useful in some cases, especially in femoral hernias

Cup shaped pads are useful in some irreducible hernias, and suspensory bags in others Belt-trusses do well in umbilical hernias, but spring-trusses serve also, if the rupture be not large Springs, with a hard spring-temper, keep their shape best under long wear, but if they do not fit well, they cannot be altered A softer temper enables you to modify the shape of the spring to fit the peculiarities of the individual form, but if it be a little too soft, the spring will slowly yield and require to be frequently bent in again to maintain the pressure Leather or silk-covered pads are pleasing at first, and hold their positions well, but as they become soiled or rotted with sweat, they require repairs Wood, ivory, celluloid, and other hard substances last very much longer, but are more expensive at the outset

HISTORY OF A CASE OF NEPHRORAPHY, WITH REMARKS

BY L H DUNNING, M D , OF SOUTH BEND, IND

Mrs G H , aged 44 years, American , of large build and strong , previous to the present illness had been robust About seven years ago she lifted hard upon an iron kettle and felt something give away in wooden wheel to rest on the back, and carrying a copper pad in front, of the shape and size of a tea-cup The whole is wound with many layers of rags of most venerable antiquity

Early in the last century the modern plan of steel springs to clasp the body from one side was developed, and, so far as I can trace the history, it appeared first in Scotland The superior security with which this kind of truss held to its position in all movements of the body, soon enabled it to drive the belt trusses out of use A long series of doctors, quacks and cranks took out patents for endless modifications of this style, and some of the improvements were very good From lapse of time the patents have mostly expired, and now all the really important principles are freely used by every manufacturer, hence many varieties of good trusses are in existence

One of the earlier forms is still widely manufactured, and is worn with excellent results by thousands, and being both cheap and efficient it commands a wide sale It consists of a steel spring, bent as in this pattern, and carrying an ovate pad to press upon the inguinal or femoral ring Like all modern trusses of the sort it is applied around the side of the hip between the trochanter and the crest of the ilium, clasping the pad upon the required part Many of those sold here are hand-made by Degenhardt, who deems it important that the spring shall be hammered by hand and given a sort of curve on its axis It is hard tempered, because he claims that the softer tempers usually employed to enable one to modify the curve in fitting on, allow the spring to bend slowly out of shape as it is worn It is covered with leather and chamois skin Thus constructed, this style of truss generally fits well if properly selected, and is very cheap All leather covered trusses, however, lack durability, for the sweat rots the leather and rusts the spring, causing it to break after a few years and necessitating a new one This form is a favorite with the Germans To render them more durable some manufacturers make the pad of celluloid, and cover the spring with the same This gives greater durability, but increases the price materially Figures 1 and 2 give an idea of the general form

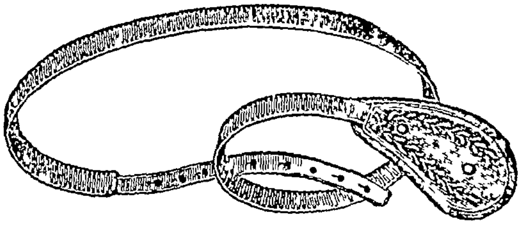


Fig 1

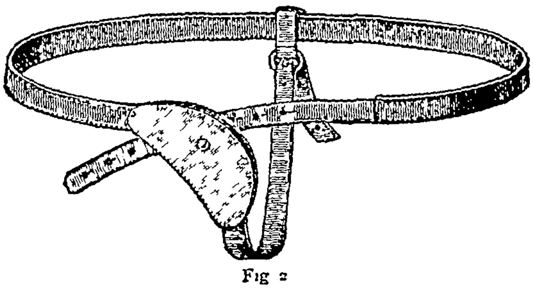


Fig 2

Many years ago a class of trusses sprang up, one of which was called the Hull truss (Fig 3)

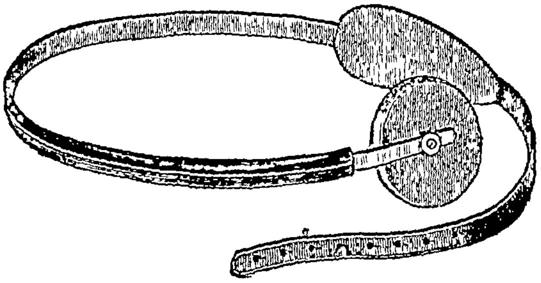


Fig 3

The spring was a segment of straight hoop of steel, not being given the composite curve, and the pad was too broad and flat, preventing the pressure from being concentrated at the desirable point It is gone to the land of fossils

Some twenty five years ago appeared the first hard-rubber truss, sold at the East under the name of Riggs' Truss, and at the West, named after one Seeley The spring had a single curve, like the preceding one, and was made long enough to reach across the middle line of the body and compress the side opposite the one clasped by the instrument The spring was composed of a band of steel, covered with polished hard rubber, and could be altered in form somewhat by heating the rubber and bending it outward or inward The pad was a marvel of foolish ingenuity It consisted of a cross of metal, each arm of which carried a little ball of hard rubber These four balls were applied around the inguinal ring, leaving the centre unsupported The astute inventor explained that these balls would draw the ring together and thus close it up The absurdity of the thing seems to have been too much for the truss to hold, for the manufacturers soon changed the form of the pad and substituted one of more ordinary shape Thus improved, the instrument did fairly good work in a great many cases, but did not fit as well as those shown in Figs 1 and 2, yet it had a considerable sale on account of its power to resist the effects of perspiration and of its consequent durability They are now nearly gone out of use, and must be classed with the fossil trusses The introduction of celluloid into the manufacture of trusses hastened the exit of the rubber instrument The pleasant pink color of the celluloid used makes it a favorite material, and as its use is not limited to any one form of truss, it can be had in various forms The springs and pads are made of steel, covered with celluloid, which protects the metal from perspiration and rust It has been charged that celluloid, being partly composed of gun cotton, will explode and blow to atoms any shop or store where they may happen to be set on fire This is an error Celluloid will not explode If I take this broken truss and touch the end of it to the flame, you see it merely burns freely, like a small torch, but shows no detonating qualities This class of instruments is sold in Chicago by E H Sargent & Co As the celluloid may be applied to almost any form of instrument, its use in the future will not constitute a particular species of truss, but rather a good method of covering various trusses, so as to exclude the perspiration and secure durability

A very excellent instrument is furnished by the United States government to ruptured soldiers It is made in Chicago by Dr A H Parker, under the trade name of the "Common Sense Truss," and extensively sold to patients (See Fig 4)

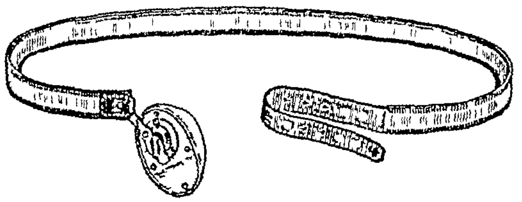
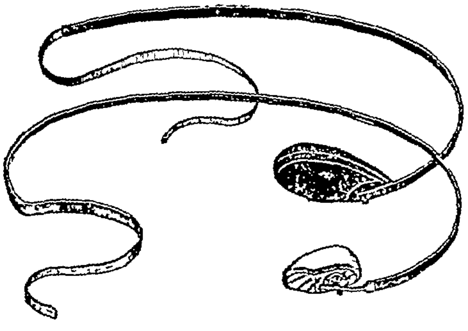


Fig 4

It consists of a steel spring, covered with a strong woven sheath, which is generally silk The sheath terminates in the usual leather strap to fasten in front The pad is of ivory or other smooth material and carried on a short arm, which can be set in different directions so as to fit the patient and change the instrument for use either with a right or a left hernia The pad is articulated with a ball and socket joint, fixed with a set-screw The temper of the steel admits of being bent to fit the form without breaking



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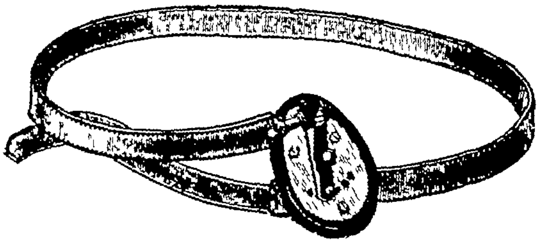

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Mrs G H, aged 44 years, American, of large build and strong, previous to the present illness had been robust About seven years ago she lifted hard upon an iron kettle and felt something give away in the right side She was ill for some time after this strain, and attributed her illness to some injury done to an internal organ Commencing six years ago, she was for three years confined to the bed the greater part of the time Of the nature of her disease, at the commencement, I am unable to say, since she was seen by many physicians, no two of whom agreed in the diagnosis of her case Four and one-half years ago she came under my observation and treatment Then there were ascites and anasarca, and pain in the pelvic region The urine was slightly albuminous I thought her a subject of chronic Bright's disease, but soon changed my opinion, as the dropsy was readily relieved, and the albumen disappeared from the urine Later on in the case, I found a tumor in the posterior wall of the body of the uterus, and another in the hypochondriac region These we concluded, after consultation, to be fibroid tumors, which were treated upon the non-interference plan Three years ago she began to improve, left the bed, and commenced light hand work Last February (1884) she had a severe attack, the main symptom of which was an intense pain in hypochondriac and lumbar regions This pain was at first supposed to be due to neuralgia, from which she suffered much and often It resisted all forms of treatment for weeks At times it was agonizing, and could only be relieved by large doses of morphine or by chloroform inhalations After eight or nine weeks the patient was better, but she was greatly emaciated The fat had nearly all disappeared from the walls of the abdomen, and I was able to better examine the contents of the abdominal cavity I now concluded that the abdominal tumor before found, and now easily outlined, was a movable kidney, and that the intense pain she had suffered was due to a stretching or twisting of the nerve supplying the kidney The range of motion in this tumor was great It could be moved without undue force two inches to the right of the umbilicus and two or three inches below the same point From these localities a slight pushing movement would cause it to glide back to its place beneath the right lobe of the liver By pressing upon the eleventh and twelfth ribs (right side), the patient could shoot it across the abdomen to the left of the umbilicus The outline of the tumor could be felt and it was distinctly kidney-shaped During the summer several physicians saw the patient, and concurred in my diagnosis

I stated to the patient the possibility of fixing the organ by an operation She urged one, and I finally consented to undertake it

Oct 30, assisted by Drs Kettring, Kilmer and McAllister, of this city, I proceeded to operate, adopting the plan described by Dr Robt F Weir in a clinical lecture published in the New York *Medical Journal*, Feb 11, 1883

The operation consisted in cutting down upon the kidney in the lumbar region, and stitching the fat and capsule to the edges of the wound Our incision extended from the twelfth rib to the crest of the ileum, was parallel to the spinal column and two and one-half inches to the right We were able to readily bring the posterior surface of the kidney into the wound or to push it away from the wound several inches In this way were we able to confirm our diagnosis The posterior surface of the kidney was crowded firmly into the bottom of the wound, and the fat and capsule firmly united to the edges by catgut sutures

Four stitches were used along each border of the incision Three stitches I thought at the time passed through the renal capsule, and the remainder through the peri-renal adipose tissue A drainage tube was placed in the bottom of the wound and fastened there The wound was left open to heal by granulation The full antiseptic dressing was used, a compress placed upon the right side of the abdomen and the whole held in place by a wide bandage Full antiseptic precautions were employed, except the spray

The patient rested well, and at nine o'clock, ten hours after the operation, the temperature was 96¾ degrees, and the pulse 78 per minute She was looking bright and cheerful, and had taken some liquid nourishment with relish Two-thirds of a pint of urine was drawn with the catheter The temperature and pulse records in the case are uninteresting, and will not be given in detail The highest temperature reached was twenty hours after the operation, when it was 99 9, and the pulse seldom reached a higher rate than 80 per minute The second day the wound was dressed, and found in a healthful condition, but we found, to our surprise and disgust, the knots holding the sutures including the deeper portions of the investments of the kidney had pulled out, and one end of each had drawn into the tissues out of sight The remaining sutures were intact, and held the kidney firmly against the bottom of the wound During the dressing an assistant made firm pressure upon the abdomen, in the hypochondriac region, to prevent any displacement of the kidney, and this precaution was observed during each subsequent dressing All went on well with the patient and wound until recovery had taken place Not an untoward symptom arose, and at the end of six weeks the wound had entirely healed

During this time the compress had been held firmly in place by a bandage encircling the abdomen Now, upon the removal of the bandage with the patient lying upon the left side, it was found the kidney moved slightly away from the position in which it had been anchored, and we were made aware of the fact that our efforts had not been entirely successful

January 30, I examined the patient in respect to the effects of the operation, and learned that the kidney was movable to the extent of about one inch in a transverse direction, but not in any other direction

That the patient has been much relieved by the operation is apparent She is quite well satisfied with the results, though the relief was not so great as she anticipated I would not have trespassed so long upon the time of the reader of this detailed history, were it not that there are several points of interest connected with it that merit more than a passing notice

The number of operations performed for the fixation of a floating kidney are comparatively few since the operation is of recent origin, and the number of cases requiring operative proceedure are limited , hence it is that all points connected with the modus operandi are not as yet definitely settled One of these points relates to the investing parts of the kidney to be united by suture to the edges of the wound

In the first two cases operated upon by [1]Hahn he passed the sutures through the peri-renal fat, and in one of them the result was not entirely satisfactory, so in the third case he included a portion of the renal capsule in the suture [2]Gilmore records one case in which the suture cut its way out of the renal capsule and set the viscus free The author of the article in Ashurst's Surgery already quoted, states "Experience will have to decide whether there is any necessity of penetrating the envelope of the kidney " That the kidney can be more firmly fixed at the bottom of the incision if the sutures pass through, and include both the peri-renal adipose tissue, and renal capsule, I have no doubt, but I am convinced after a number of experiments made upon the kidney, and its investments soon after the slaughter of the animal (sheep) that if the peri renal fat and capsule are intact, *i e* , if they retain their intimate relations and attachments to the kidney, which may be ascertained when that organ is exposed by the incision, there is no need of attempting to include the nearer investing capsule of the kidney, for I found the attachments of the former to the latter strong enough so that if secured by a single suture it would bear the weight, without tearing, of more than two normal kidneys Apply now eight or ten sutures, at proper intervals, throughout the length of the posterior surface of the kidney, and I believe it will be so firmly held in position that deeper sutures will not be required Further, I found during the experiments just referred to, that unless the renal capsule is detached, and lifted up by drawing upon the peri renal adipose tissue, it is exceedingly difficult of separation from the organ which it envelopes I made several attempts with my dressing forceps to raise the renal capsule, but failed in every instance, unless sufficient force was exerted to wound the tissues of the cortical structure of the kidney With small tissue forceps I could do somewhat better, and with small conjunctival forceps, if care were used, the capsule could be readily seized, and quickly separated from the organ In this way, an area of capsule probably one inch in diameter, could be lifted up without tearing it or wounding the kidney The dressing forceps were of service in carrying forward the work begun by the more delicate instrument It was found that by gentle yet firm traction upon the adipose tissue a portion of the capsule would be separated from the viscus This was not uniformly the case, yet occurred sufficiently often to lead me to think it probable that my three sutures included a portion of that structure The difficulties in separating the capsule from the kidney of the patient may not be so great as I found them upon the post-mortem kidney Of this truth I am firmly convinced, great care should be exercised in attempting to seize and separate the renal capsule so as to include portions of it in the sutures My unfortunate experience in the use of carbolized catgut would lead me in another and similar instance to use properly prepared silk in at least one-half of the stitches employed

ON SEPTIC JAUNDICE OF CHILDHOOD, WITH REPORT OF A CASE AND RECOVERY IN CHILD AGED FOUR YEARS

BY M P HATFIELD, M D , CHICAGO, ILL

[Read before the Section on Diseases of Children at Washington Meeting, etc]

Septic jaundice is, fortunately, of rare occurrence among children, for its appearance usually betokens so profound a saturation of the system with septic materials that only the gloomiest prognosis can be given

It is, therefore, a symptom rather than a distinct disease (though sometimes discussed as such under the title of *malignant* or *pernicious* icterus), and deserves careful study as one of the gravest symptoms of toxæmia, concerning whose exact pathology we really know as yet but little

Schiff's experiments, unfortunately not concluded, seem to prove conclusively that the liver acts as the great depurating organ of the body, forming a definite chemical antidote, or chemically neutralizing many of the organic poisons, such as conium when taken into the blood Malarial and septic poisons are doubtless chemically closely allied to these volatile alkaloids and similarly disposed of in the economy, so much so that, as long as the functions of the liver are properly performed, it is very doubtful whether malarial, or septic, intoxication can take place The icteric here so generally found in both of these, as well as in phosphorus and certain other forms of poisoning, betoken the sympathy of an overtasked liver with these forms of toxæmia

Just what the hepatic lesion consists in has not yet been settled The present popular theories would attribute it to small, round, and rod-shaped bacteria filling up the biliary ducts throughout the organ, and thus producing acute yellow atrophy, or something very like it (Hlava) Virchow considers it a metastatic pyæmia, with localized foci Bohn thinks it due to an œdematous condition of the hepatic connective tissue Andral claims that septic icterus originates in an inflammation of the common membrane lining the duct and duodenum, and, with Davidson, believes that the malignant form begins as the catarrhal variety, as does also Cornil Others, and with a fair show of reason, attribute pyæmic jaundice to impressions made upon the nervous system, especially the abdominal sympathetic, by toxic agents, as also happens from fright or protracted mental strain

It is true that division of the splanchnic nerves causes immediate dilatation of the hepatic and other abdominal veins, with consequent alteration of blood pressure in the portal veins, and possible jaundice in this way More probably, if nervous influence plays a part in the production of septic jaundice, it does it indirectly, possibly after this way Septicæmia implies an accumulation of septic material —septin bacteria, reduced hæmoglobin, or whatever may be the peccant material—in the blood in excess of what the liver can dispose of for the safety of the body It is natural to suppose that increased work implies increased functional activity An overworked organ is an irritable one, for *ubi irritatio, ibi flux*, and the metabolic activity of the hepatic cells depends upon the degree of blood pressure Hence, an excess of bile pigment over that excreted both from actual surplus, and possibly from obstruction of ducts by proliferation and fatty degeneration of the hepatic cells Moreover, super-excitation finally leads to exhaustion and paresis of the arteries supplying the organ This produces venous congestion, and this again assists the diffusion of the bile pigment into the circulation At least this seems a reasonable explanation to the writer, and is borne out by microscopic examination, which shows in these cases the hepatic cells shrunken and compressed by young cells, connective tissue and excess of oil globules without nuclei I am aware that this jaundice is considered as hæmatogenous rather than hepatogenous, and due to disintegration of red corpuscles, but this theory I think is gradually losing ground, and is certainly untenable in icterus neonatorum But whatever may be its exact pathology, the disease is certainly a formidable one, according to Frerichs, almost invariably ending in death All treatment, says Murchison, has hitherto proved unsatisfactory, and this must be my excuse for detailing a case with a satisfactory termination, the boy still living among the inmates of the Protestant Orphan Asylum at Chicago, and, up to the time of writing, enjoying as good health as the majority of the other children This case is as follows, and occurred during an epidemic of scarlet fever in the Asylum

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[1] Ashurst's Surgery, Vol V, p 1096
[2] Ibid

Willie McKeon, æt 4 years, was taken suddenly ill, on the morning of the 4th of August, with sore throat, vomiting and high fever He passed a restless night, and on the morning of the 5th was evidently worse, temperature 104°, and surface of body dusky, with here and there petechial spots about the size of a pea Diagnosis of scarlatina petechials was made with grave prognosis, and on the morning of the third day a true scarlatinal rash appeared The throat became greatly swollen, and the tonsils covered with diphtheritic patches Deglutition was almost impossible and swabbing entirely so, for all medicine administered by the mouth produced vomiting The case now became complicated by the appearance of an entero-colitis, with frequent loose, dark-colored stools and much tenesmus This was however, promptly relieved by the use of starch and laudanum enemata The next morning the child was found very drowsy and delirious, with a temperature of 105°, and the throat sloughing and so fetid that it was hardly possible to remain in the room Antiseptic spray (eucalyptol) with the steam atomizer and quinine, milk and whisky were administered as freely as possible, but, nevertheless, the case steadily continued to grow worse until, on the night of the fifth day, the boy was comatose and deeply jaundiced, with a temperature of 105½° It seemed unlikely that he would live through the night, but the morning of the next day found him still jaundiced from head to foot, and the temperature marking 104° This slight fall from the previous day, and the fact that the diarrhœa was checked were the only symptoms that could be considered in anywise hopeful, and these not sufficient to warrant anything but the gloomiest prognosis for that and the succeeding days (vi vii) during which the child was, if possible, weaker and drowsier than ever during the day-time, with delirium at night Except the use of a nasal douche and an acid quinine bath, treatment was abandoned and the attention of the nurse directed to the administration of whisky and milk enemata, in spite of which the boy was found on the evening of the sixth day speechless, jaundiced intensely, and apparently in articulo mortis The secretions being passed involuntarily in the bed it was impossible to obtain any of the urine for examination, but the stain it left upon the linen showed that it, as well as the nasal mucus and even the cerumen of the ears, was deeply stained with bile pigment As a last resource on the morning of the seventh day oil and mustard were freely applied over the liver, and as the child became a trifle brighter towards night this was followed by the acid pack, so highly spoken of by Beale Recovery after the eighth day was tedious, but uninterrupted except by a parotitis (single), from which the boy at last entirely recovered, and was finally discharged from the hospital exactly one month from the day when he was first taken there, in spite of the hopeless prognoses of all the physicians who had seen him during the progress of what was to them and the writer an entirely unique case For neither Smith, Meigs, Bouchut, Hillier, West, Ellis, Bohn nor Steiner, mention jaundice as a possible complication of scarlet fever, nor give a favorable prognosis in scarlatina petechialis

Septic jaundice, originating from purulent inflammation in the umbilical vessels of the new-born has been exhaustively discussed by Birch-Hirshfeld, [Hdbk der K K Bd iv , ii Abt p 693–702] and others, but septic icterus from other causes is of so rare occurrence that I have been able to find no literature on the subject further than an allusion to its possibility

For the reason previously given, the writer is inclined to believe this a case of septic jaundice due to re-absorption and an effort to eliminate the septic material The case very closely resembled in its clinical aspects one of acute yellow atrophy of the liver In fact, from the symptoms it might have been diagnosed as such, but Niemeyer claims that children do not have acute yellow atrophy, and the final result militates against yellow atrophy which is uniformly fatal, and affords exquisite post-mortem specimens for confirmation of diagnosis As this was wanting in this case, the diagnosis must remain more or less problematic, but the drowsiness and coma were indicative of more than simple catarrhal jaundice; neither were there the clayey stools usual to that form of icterus. Possibly there may have been hæmorrhagic infarcts in the liver, but in that case we should have expected similar hæmorrhage from the bowels. Hence the diagnosis of septic jaundice, and whatever the exact pathological change, the case is certainly interesting and hopeful from its unexpected termination.

SENSATIONALISM AND DOGMATISM IN SANITARY MATTERS.

BY HENRY LEFFMANN, M.D.,
PORT PHYSICIAN AT PHILADELPHIA.

[*Read in Section of State Medicine and Hygiene, American Medical Association, May, 1884.*]

The development of preventive medicine into a full science, to the assistance of which chemistry, microscopy and other aids of research have been invoked, is an event of our own time. This study brings our profession into closer contact with the masses than does perhaps any other department of medicine. The work of instructing the community on sanitary topics has been pushed so far that disease is now generally recognized as the necessary result of violation of natural laws, although some superstitious ideas still survive. The multiplication of official boards of health and the general acquiescence of the public in the decisions of these bodies are so many testimonies to an increased appreciation of hygiene. The medical press, the means by which the profession disseminates its scientific information, is practically unavailable for distributing it among the masses; the intervention of the non-medical press, and especially of the daily newspaper, has been resorted to, and these publications have, within the last few years, dealt largely in articles on sanitation, food adulteration, etc. Now, the daily newspaper is undoubtedly an institution of the greatest value; its shortcomings are entirely overweighted by its benefits, but it cannot be denied that it possesses a strong tendency to sensationalism. Its treatment of sanitary matters has not been free from this defect, and the evil has been increased by a similar disposition on the part of sanitarians themselves. The statements that have been made on some of these questions, both by medical and non medical persons, are unfortunate instances of the danger of a little learning. The public has often been thrown into needless alarm by unwarranted suggestions as to the injurious character of certain substances or special conditions, and violent measures inaugurated for the suppression of imaginary evils.

I remember, for instance, that in my student days sewer gas was regarded as the *fons et origo mali*. I was taught that it was specifically injurious, doubtless the cause of many diseases. I even remember hearing it suggested that it was probably the cause of one class of diseases when it contaminated food, and another class when simply inhaled. Much of this dread has now declined. At a meeting held about a year ago at the College of Physicians, a distinguished sanitary engineer said that the view of the specificity of sewer gas would have to be abandoned; it was probably at most only a carrier of germs.

Great public interest has been attracted lately to two articles of food adulteration—glucose and oleomargarine. That in many cases great deception has been practiced by means of these substances, and that householders, especially among the poorer classes, are daily robbed, cannot be doubted. A desire to prevent such frauds has, however, led to exaggeration in regard to their dietetic characters. There is no reason at all to pronounce them injurious. Glucose, for instance, is practically the form into which cane sugar is converted by the digestive process, and it cannot, therefore, be regarded as injurious. Yet a feeling to the contrary has been allowed to grow to such an extent that a short time ago, when the Business Men's Moderation Society of New York City undertook to certify to the wholesomeness of the beers sold in that city, the officers of the society indicated as one of the objectionable features in the manufacture the use of glucose, and even threatened to make an issue on the question. A certificate has lately been going the rounds of the journals, in which several chemists of reputation jointly declare that glucose is not injurious. As Sir Joseph Porter says, it is the characteristic of this happy country that official utterances are regarded as unanswerable, and so we may hope that the excitement will be stilled, but the facts should have been made known long ago. To object to the use of glucose in the preparation of alcoholic liquors is absurd in the extreme, for it is the form of sugar from which alcohol is nearly always produced in fermentation.

Oleomargarine and its congeners have been extensively assailed, and it seems very difficult to get for it a fair hearing. About six months ago, in a discussion on dietetics before the Philadelphia County Medical Society, a physician of prominence took occasion to allude to the unwholesomeness of these butter substitutes. He gave no reason for his opinion except the dogmatic statement of some French physicians. I took occasion to point out the untenableness of this view, but to no purpose. The first speaker reiterated his opinion, and many of the members seemed to be in accord with him. Yet there is no fact to support this view. Oleomargarine differs from butter in not possessing the derivatives of the more volatile fat acids, especially of butyric. The entire amount of these derivatives is small, and no one has yet pretended that these exert any beneficial or specific action in digestion or nutrition, and the difference, therefore, between the two fats is unimportant. Some of the opponents of the butter substitutes have lately taken refuge in the argument that they may be prepared from impure materials, but this is only an objection to the method. It could be avoided by a proper system of inspection. It is also true that true butter is not always made in the most unexceptionable manner.

Acting probably under the pressure of public excitement on this topic—possibly, however, in deference to the political influence of the dairymen of the State—the New York Legislature has recently framed a bill for the complete suppression of the sale of butter substitutes. In the course of the argument in favor of such a bill, the Legislative Committee say that nitric acid is used for the purpose of depriving the fats of their odor, and they add that nitric acid is a poison. This it certainly is, but it is not likely that a trace of the acid is left in the manufactured product, since any notable quantity would betray itself by taste. The statement must, therefore, be regarded as sensational.

The adulteration of alcoholic liquors is of great sanitary importance, and is a topic on which great errors have been promulgated. Much harm has been done by well-meaning but misinformed temperance leaders, but the tendency of physicians to extol the virtues of fine old genuine liquors has also contributed to a feeling against the factitious articles. These, however, are not, as a rule, more hurtful than the original articles. The substances used in liquor adulteration are mostly non-injurious. I have within the last week had the pleasure to see a recognition of this fact by the physician in charge of the Franklin Reformatory Home in Philadelphia. He refers to the frequent remarks of patients in the Home that their depressed condition was due to the drugs which were put into the liquors, but he emphatically contradicts such a view, and points out that the injurious body in liquor is the alcohol.

There can be no question that a pure water supply is of great importance, but there can be also no question that in some respects water analysis is the quackery of chemistry. It has long been believed that the danger in water was in the organic matter, and various processes have been devised to determine the amount and character of this. Each process has had its turn of favor, and while in fashion has been arbitrarily used as a basis for judging of the wholesomeness of samples. It is curious to notice how the sensational language of certain authorities has become popular in this department of hygiene. The organic matter is rarely spoken of under this simple title. It is called pollution, sewage, organic impurity, etc., all terms calculated to alarm, and by no means always correctly describing its nature.

I might take up the time of the Section with many instances like these. It would be interesting, for instance, to trace the history of the agitation on the subject of alum in baking powders, the use of the agent having been officially condemned as unwholesome and this statement, widely published by a certain baking powder company, is now officially contradicted.

We can see, I think, that there is need in sanitary science for a little of the skeptical spirit, a little of mistrust in dogmatic statements, a little hesitation in accepting the views of any particular authority. It was for the purpose of opposing the tendency to sensationalism and dogmatism that I have brought this paper before the Section.

SACCHARATED VERSUS ALCOHOLIC EXTRACTS.

BY G. C. W.

That many of the more popular quack medicines, tonics and bitters, are essentially alcoholic solutions, varying in percentage of alcohol from eight to about forty-five per cent, has been frequently demonstrated by analytical chemists.

The list published by the State chemist of Rhode Island, giving the alcoholic strength of some thirty or forty of the leading bitters, is familiar to those who have but moderately pursued this line of investigation.

It is not, however, so generally known that the two large classes of staple pharmaceutical preparations, viz.: Elixirs and fluid extracts, are *very rich* in alcohol, the fluid extracts generally containing over fifty per cent. Of these latter I wish now more particularly to speak.

It is doubtless true in the case of those fluid extracts of the more powerful drugs, such as aconite, nux vomica, and the like, that on account of the smallness of the dose, the amount of alcohol administered is insignificant, and, therefore, unimportant as regards physiological effects. But of those where the dose is quite large—and this class is the more employed as compared with those just alluded to—it properly becomes a question of serious importance whether the quite considerable amount of alcohol necessarily introduced into the stomach, enfeebled as it may be, by disease, does not frequently exert an unfavorable effect upon the patient. But even in the event of no prejudicial results directly ensuing, the treatment is usually followed by the highly flavored, often very agreeable, yet strongly alcoholic elixirs of modern "elegant pharmacy," and then as the patient convalesces these are merged into the habitual and frequent use of some one of the popular "tonics" or "bitters" whose special mission too often is, to permanently fasten upon their victim a morbid craving for alcoholic beverages. What physician of long practice but can recall many cases where this order of sequence has been the unfortunate result.

In view of these unhappy results, that, as we know, so frequently occur, it is proper to call attention to the deplorable fact that of late certain unprincipled manufacturers have begun to employ methylic alcohol (wood spirit) to partially replace ordinary (or ethylic) alcohol, and this extremely poisonous substance is doing in many cases most dangerous and deadly work.

Independently, however, of the question of direct action of the alcohol used in pharmaceutical preparations, the friend of sobriety, be he physician or patient, must hail with delight any modification in these products of the pharmacopœia which will render the administration of alcohol unnecessary. Any step taken by pharmacists which demonstrates that other and innocent vehicles may be used as efficient substitutes for alcohol, ought to be welcomed by every one who is not a foe to his race.

We are glad to state that for the staple alcoholic preparations known as *fluid extracts*, a substitute has now for a few years been before the public known as "*saccharated extracts*" These are precise therapeutic equivalents for fluid extracts, have the same dose and are entirely non alcoholic They are substitutes for fluid extracts, with milk sugar as a vehicle instead of alcohol, the former exactly replacing the latter, so that the finished product is a powder instead of a liquid They are made by distilling off the alcohol of a fluid extract at a low temperature, and incorporating with the pasty mass remaining, "solid extract," so much sugar of milk as to bring the strength of the product up to that of the original crude drug, or what is the same, up to the strength of a well-made alcoholic fluid extract of the given drug

The saccharated extract is nearly always soluble in water, and if it is desired to administer the medicine in a fluid form it is simply necessary to give it to the patient dissolved in that solvent And even in the few cases where the particular drug is not capable of entire solution in water, the sugar is dissolved and the drug is left suspended in such a minute state of subdivision as to become very rapidly absorbed when taken into the system—much more rapidly, indeed, than a pill, or many other forms of pharmaceutical preparations Aside from the merits of the saccharated extracts as being non alcoholic, there might be enumerated many advantages which they possess of a therapeutic and pharmaceutical character, which, however, it would be foreign to the scope of this journal to specifically detail We close, therefore, with a quotation simply from the *Journal of Inebriety*

"The introduction of saccharated extracts in the place of tinctures and fluid extracts, has marked a new epoch in the advancement of medicines, which is destined to become very widespread as the profession come to realize the danger from alcoholic extracts and tinctures The Wheeler chemical works, of Chicago, in introducing the *saccharated extracts*, have conferred a favor which will be appreciated by physicians, especially those who have found the administration of fluid extracts and tinctures so dangerous to their patients on account of their alcoholic character"

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS.

On the Therapeutic Properties of Thyme — Dr Campardon has given in the *Bulletin General de Thérapeutique* the result of his practical observations with this drug in some thirteen cases, with the following conclusions

I Internally as well as externally the essence of thyme is a powerful agent producing certain phenomena in the healthy man which are always the same, but vary in degree, according to the dose and constitution of subjects, and which can be divided into three periods

1st The period of excitation

2d The period of super excitation

3d The period of prostration, of collapse, followed by death

II The therapeutic doses are those which produce excitation (from 20 centigrammes to 1 gramme)

III Applied to therapeutics, this drug which is a diffusible stimulant, on account of its exciting properties, should be used internally in chloro-anæmia accompanied by depression, in syncope, etc

IV Its diaphoretic and diuretic properties render it useful in localized muscular rheumatism, in erratic rheumatism, in dermalgia, neuralgia, etc

V Its action on mucous membranes renders it of the greatest utility in the catarrhal stage of affections of the bronchi, the urethra, the vagina, and the bladder

VI It is a hæmostatic and acts promptly and energetically, particularly in passive hæmorrhages

VII Used externally, with friction, baths, fumigations, and inhalations, it is a possible aid to its internal use in shortening the duration of diseased action and in assuring the result

VIII As an antizymotic, its power is equal to that of thymic acid, it is efficacious in counteracting the septicity of wounds, and causes a prompt disappearance of the fœtidity of secretions

Cocaine in the Uncontrollable Vomiting of Pregnancy —Dr M Weiss records in the *Prager Medicinische Wochenschrift*, a case as follows A 28-year old woman being pregnant for the fourth time, was taken with vomiting three weeks after the last appearance of her menses (which was Sept 1), and sought medical advice for its relief at the end of the second month She was found to be much emaciated and anæmic, keeping her bed for the past eight to ten days from debility and persistent vomiting Natural irritability, small but rather frequent pulse Temperature 36 5 C, shallow respiration, faintness on attempting to stand, no organic lesions, third month of pregnancy With the exception of a small quantity of black coffee, hot tea, and mulled wine, no food, even of a fluid consistency, would remain on the stomach No medicines seemed to give any relief, nutrient enemata could no longer sustain life, and the danger of death from inanition became imminent

Nov 7, the cocaine was given as in the following prescription

℞ Cocaine Mur in sufficient quantity of spirit-wine to make a solution of 0 15 Aq Dist 150 0
Sig 1 small teaspoonful every half hour

After the patient at 6 A M had taken a few teaspoonsful of black coffee, an hour later the medicine was given and repeated as prescribed The first doses had a slightly bitter taste which, from the benumbing of the sense of taste, after the third dose was no longer perceptible Some minutes after the sixth dose the patient took 3 tablespoonsful of milk that were well received and not vomited After the eighth dose the patient took with great pleasure a small cup of bouillon with an egg—no vomiting

At 2 P M , 13 to 14 spoonsful of the solution having been taken, the patient was found to be cheerful and bright, and rejoicing over the fact that she had been enabled to retain what she had taken of the midday meal, consisting of broth, a little of the white meat of a chicken and a glass of claret She thought herself well enough to leave the bed The face was somewhat flushed, the pupils moderately dilated, the pulse frequent, increasing from 84 to 96, the respiration from 22 to 28, whilst the temperature in the axilla remained about the same (36 8 to 36 7)

In consequence of these favorable symptoms, the use of the medicine was suspended until 4 P M , at which time the pupil no longer dilated, the pulse fell to 86, the respiration to 22, and the patient again vomited a part of some *cafe au lait* which she had taken Its use was then resumed and kept up until 8 P M , when the patient enjoyed and retained some prepared chicken and a glass of Pilsner beer

Nov 8, the rest of the cocaine solution (about a fourth part) was given in hourly doses There was no vomiting through the day Unfortunately no record was kept of the temperature, pulse, and respiration, so that a comparison with that of the previous day could not be made

Nov 10, the patient left her bed and since then her condition is quite satisfactory She vomits now and again, but retains the greater part of her food She now attends to her usual occupations

ANTIPYRINE —Dr Huchard, in *L' Union Medicale*, has published an admirable resumé of the qualities of this drug, of which the following are his conclusions

1 Antipyrine constitutes a sure and powerful means of lowering the temperature in nearly all febrile diseases (typhoid fever, pulmonary phthisis, pneumonia, pleurisy, acute articular rheumatism and cerebral rheumatism, angiocholitis, erysipelas, diphtheria, puerperal fever, scarlatina, abscess, phlegmons, etc) It lessens the symptoms which are dependent upon the thermic elevation (acceleration of the pulse and of respiration, dryness of the mouth, anorexia, insomnia, etc), but it does not seem to have any direct action upon the respiration and the circulation

2 Antipyrine is an antipyretic, and not an antiperiodic, whence its inefficacy in preventing attacks of intermittent fever

3 Its use does not result in any or but slight disturbances, such as slight sweats, pharyngeal constriction, sometimes nausea or vomiting, and in some relatively rare cases production of rubeoliform or scarlatiniform exanthemata No tendency to collapse, no dizziness, as after the use of the preparations of quinine or salicylates

4 Numerous observations demonstrate that antipyrine constitutes the most powerful means, and at present the only means known of lowering effectually the temperature of cases of tuberculosis

In the dose of 2 grammes, administered more especially in the evening, on the accession of fever, the temperature lowers to half a degree in a half hour, sometimes in a quarter of an hour, after which it diminishes progressively to normal in an hour and a half or two hours It is, however, sometimes necessary to prescribe, one or two hours later, a new dose of 1 or 2 grammes But with phthisical patients antipyrine should be given in feeble and increasing doses (2 to 4 grammes)

5 The antithermic effect continues ordinarily with patients for six to nine hours, and is often felt on the succeeding days, when the temperature does not reach its primitive degree The secondary ascent of temperature proceeds progressively, recalling in this way the progress of defervescence, it is not sudden, and is never accompanied, as with kaisine, by a more or less prolonged chill

6 Antipyrine is eliminated by the urine, where it is recognized two to four hours after its administration, during from thirty-six to forty-eight hours Several drops of perchloride of iron dropped into the urine of patients using the drug, produce immediately a very characteristic red color

7 According to various authors, antipyrine used in typhoid fever must be given in doses of 5 to 6 grammes a day Under the influence of these doses the temperature lowers from the first hour from 0 4 to 2 degrees, continuing in the same proportion to the seventh or eighth hour Frequently at the fifth or sixth hour the temperature rises one degree for about an hour, to again resume its regular descent This slight ascent of temperature during a pyrexia has also been noticed during the use of antipyrine in the fever of phthisis

A CASE OF VAGINISMUS TREATED SUCCESSFULLY WITH HYDROCHLORATE OF COCAINE —Dr Dujardin-Beaumetz reports (*Bulletin General de Thérapeutique*) the case of a servant thirty-three years of age, who was married at the age of twenty one, had a child eighteen months later, with a tedious labor which required the use of the forceps For several months after her confinement she suffered from the effects of a partial retention of the placenta Upon recovery, sexual congress became extremely painful, which was so marked that all cohabitation was impossible Upon admission to hospital and examination, some distance from the orifice of the vagina there was found to be a contractile adhesion strongly marked and resisting the passage of the finger While the patient was under chloroform the vaginal orifice was forcibly dilated, first with the fingers and then with the speculum This operation not proving very satisfactory, a gradual dilatation was attempted by the introduction of the bivalve speculum twice daily, and left in place for one or two hours at a time This treatment proving as inefficacious as the first, painting the internal surface of the labia minora and the whole circumference of the vaginal orifice with a solution of cocaine, 2 parts per 100, was practiced In about a minute sensibility to the prick of a needle had disappeared, and the speculum was introduced almost without any pain, much to the surprise of the patient A second application made on the following day gave the same result On the third day the speculum was introduced without the use of the drug and with but little resulting sensibility After four of such applications, the introduction of the speculum and the practice of the vaginal touch with the finger gave but little annoyance, the contracted adhesion in the vagina being no longer felt

SURGERY.

Reduction of a Dislocation of the Shoulder-Joint by the Kocher Method —M Henrard describes a case in the *Archives Medicales Belges*, of a soldier who presented all the symptoms of a subcoracoid luxation of the right shoulder, falling of the shoulder, prominence of the acromion, the elbow away from the trunk, vicious direction of the axis of the arm, presence of a round and osseous tumor in the axillary space, a depression under the acromion, impossibility to execute the movements of the arm, and slight shortening of the member

According to the patient, this was the sixth time that this accident had occurred Previously recourse was had to different methods, and each time the work of reduction had been very laborious The patient could not give any description of the methods used, because they had been applied under chloroform

The patient was seated on a chair, an aid sustained the affected arm M Ruelle made the reduction On his knee before the patient, he grasped the arm, the fore arm was carried to a right angle, and brought very slowly and quietly, until the elbow was against the trunk This first movement executed, the superior portion of the member in the same gentle way, was rotated outwards The fore-arm was nearly perpendicular to the thorax when the operator and his assistant felt manifestly the movement of the return of the head of the humerus into the glenoid cavity At the same time all the physical symptoms of the luxation disappeared In five minutes the reduction was effected, with hardly any pain to the patient The Kocher method has been described in the January, 1884, number of the *Archives Med Belges*

OBSTETRICS AND GYNÆCOLOGY.

Extra-Uterine Pregnancy—Natural Expulsion of the Child Through the Abdominal Walls—Strangulated Intestine—Artificial Anus—Recovery —Dr Bouzol, in the Lyons *Medical*, reports a case which is fully comprehended under the above title The patient was 38 years of age, and had given birth to six children Her youngest was born June, 1881, and after its birth menstruation was never reëstablished In July, 1883, finding her abdomen enlarging, she suspected pregnancy, and felt movements toward the end of the month These movements were not, however, of the same character as in preceding pregnancies In the first part of December she was taken with pains closely resembling labor pains, which continued to increase in intensity for three days, and then ceased suddenly on the discharge by the vulva of numerous blood clots On December 20 she noticed a decided swelling at the navel, which resulted in a small opening, that discharged a great quantity of yellow liquid for one day, but on succeeding days only a few drops of purulent fluid were passed On January 31, 1884, Dr Bouzol saw her for the first time, found her in bed, much debilitated and greatly emaciated On palpation of the abdomen there was established the presence of a solid, irregular tumor, which passed the median line, but occupied mainly the left plane and internal iliac fossa The tumor was slightly mobile, and extended about a finger's breadth above the umbilicus The umbilicus was retracted, and seemed to be adherent to the tumor, presenting in its centre a small opening, which discharged a little pus, and through which passed a very fine stylet No abnormal sounds on auscultation The tumor was felt through the vagina to be in the left cul-de-sac The doctor prescribed tonics, and left the case to nature, after diagnosticating the true condition of affairs Some days later the umbilicus cicatrized, but at the same time there commenced to develop a little below the umbilicus, and to the left of the median line, five or six prominences unequal in size, which opened spontaneously on February 20, enlarging rapidly and forming a single opening, which was large enough to admit the closed hand Through this opening there passed for fifteen days small bones and pieces of putrefied flesh, terminating in the discharge of two large fragments representing parts of the head After this the abdominal opening cicatrized rapidly until it became of the size of a five-franc piece, and the general health improved accordingly On April 10 the patient made a vigorous effort to get into bed, when a voluminous loop of intestine escaped through the opening This was not returned, but soon became strangulated, with all the accompanying symptoms Dr Bouzol attached, by means of sutures, the intestinal walls to the lips of the abdominal wound, which resulted in the formation of an artificial anus What became of the loop of intestine or how this change was effected the doctor does not tell us very clearly, but says that by the next day all signs of strangulation had passed off, and that a month later the artificial anus was markedly diminished in size, and that the lower extremity of the intestine had commenced to functionate, the fecal matters passing in part through the abdominal orifice and in part through the anus At the present time (December, 1884) the artificial anus is completely closed, leaving behind it quite an apparent cicatrix, which forms a depression in the abdomen

MEDICINE.

On Medullary Scleroses of Vascular Origin —Dr Emile Demarge (*Remede Medecine*) reports at length an interesting case of diffuse syphilitic interstitial myelitis, simulating by the consequent lesions a combined sclerosis of the lateral and posterior columns, vascular in its origin The study of his case leads him to the following conclusions

1 That we must admit a class of interstitial myelites of vascular origin

2 That these myelites have for their initial lesion the endoperiarteritis sclerosis of the vessels of the cord

3 That the dissemination of vascular lesions produce a dissemination and diffusion of lesions of the cord, whence it follows that non systematic but diffuse myelitis is observed

4 That, according to the disposition of the affected points of the cord, the clinical symptoms will be very varied, and simulate the symptoms of lateral sclerosis, of lateral amyotrophic, systematic, combined, and probably still other clinical types

5 That these myelites may have as their cause either syphilis, primitive development in the cord, or be due to a manifestation in the spinal axis of a generalized arterio sclerosis

Medullary scleroses of vascular origin comprise thus

1 Sclerosis in disseminated spots

2 Certain diffused interstitial scleroses, either syphilitic or associated with general atheroma

On Tuberculous Infection through the Genital Passages —M Ch Fernet considers this subject at some length in the *Societe Medicale des Hopitaux* (*Bull et Mem*) formulating his views upon the observation of several detailed cases as follows

1 Primitive genital tuberculosis may probably be caused by direct contagion in sexual intercourse To the numerous sources of tubercular infection as now known or suspected, infection through the genital passages should be added

2 All cases of indolent blennorrhœa, which in certain men follow sexual intercourse, and which are particularly not the result of blennorrhagia proper, should be suspected, many of these cases seem to be of a tubercular nature The same may be said of certain leucorrhœas in the female The appearance of the tubercular microbe in these blennorrhœas and leucorrhœas decides the question

3 Sexual congress with a subject affected with genital tuberculosis exposes one to direct contagion, it involves, then, a risk which it is wise to avoid

4 One of the principal dangers of genital tuberculosis resides in the possibility of a general secondary infection, therefore we should attempt its cure by all means, even in cases of necessity having recourse to operative surgery

On Bacterian Syphilis —Professor Neisser has written an account of this disease which has been considered by P Diday and A Doyon to be of sufficient importance to be translated in full in the pages of the *Annals de Dermatologie et de Syphiligraphie* His propositions are as follows

I *Infection* The bacteria penetrates into the organism by any point upon the surface of the body, where the denudation of epidermis or epithelium allows of their introduction into the lymphatic channels The virus remains at the infected point, certain of the germs pass immediately into the circulation and rest as localized at the lymphatic glands of the infected part

II Then comes the period of first incubation when the presence and action of the bacteria are not manifested, but when they are certainly multiplying at the point of infection and its dependent gland, then follows the primary affection and the engorgement of the primary lymphatic glands

III Invasion of the organism by the bacteria, which are in process of multiplication in the primary affection and in the lymphatic glands

IV The different systems become gradually involved—glands, skin, mucous membrane, etc The glands are the depositories of the bacteria and receive them during what are called the latent periods

V Either these germs disappear finally, and it may be spontaneously, or by the effect of an energetic and persevering treatment, or they persist and in the latter case

VI Relapses occur after periods of latency, when the bacteria penetrate anew in great numbers into the circulation

VII The more recent the period of infection, the greater the number of bacteria in the body and certain of its organs In consequence in the later periods there are

1 Gradual diminution of the influence of infection

2 Gradual diminution of the possibility of hereditary transmission

3 A rarer appearance, and solely in isolated spots, of morbid collections

VIII Moreover, there occurs gradually, perhaps through the influence of accessory chemical products provoked by the bacteria, an alteration of the tissues which constitutes, in the remote periods, the basis of the gummatous forms

IX Mercury is a direct poison to the bacteria, and consequently if it be employed in proper dose and for a sufficient length of time, it should have a preventive action against the appearance of the gummatous period Iodide of potassium accelerates the resorption of neoplasms in small doses for the symptoms at their onset, and in a most striking manner the gummatous products

X As concerns the variable malignity of the disease, it is controlled, making exception of original constitutional abnormalities, viz

1 Principally the quantity of virus which has suddenly invaded the organism, and consequently its evolution depends upon the energy of the treatment

2 Perhaps, also, to the variable quantity of the virus which by the immunity due to a previous infection, and to the heredity of that immunity through several generations, has produced an attenuation

Dr Austin Flint, Jr , adds four more cases of diabetes to the fifty two reported to the American Medical Association The patients were placed on strict antidiabetic diet and Clemens's solution of arsenite of bromine, beginning with three drops, increased to five, was also given Of these four cases three were permanently relieved In conclusion he adds, "*Diabetes has become to day a disease easily and certainly curable, provided that the treatment be not begun too late*"—*Louisville Medical Times*

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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Per Annum in Advance	$5 00
Single Copies	10 cents

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Address

Journal of The American Medical Association,
No 65 Randolph Street,
Chicago Illinois

SATURDAY, FEBRUARY 21, 1885

Congress and a Health Bureau or National Board of Health —As we predicted several weeks since, the committees having charge of the bills relating to national health organizations in the two houses of Congress, have concluded that the time intervening before the 4th of March, is too short to permit the discussion and passage of any such bills

They will, therefore, only recommend the appropriation of $20,000 for the use of the present National Board of Health for the coming year and the placing of $500,000 at the disposal of the President, as a contingent fund, to be used only in case the cholera or other severe epidemic disease should become prevalent in our country during the coming summer and autumn To place an adequate sum of money where it can be used in fighting an epidemic after it has become prevalent, is better than to do nothing Yet, if a cholera epidemic in this country is dependent on the importation of its germs or specific cause, and is therefore preventable by efficient sanitary and quarantine measures, as claimed by sanitarians of the present day, how much more economical and humane would it be, to spend the money in devising and faithfully executing such measures of inspection, detention, and sanitation, both on the sea and on the land, as will be most certain to prevent an outbreak, instead of waiting until the disease is already developed and slaying its victims by thousands, in the midst of suspended commerce and paralyzed industries We do not assert that the prevalent views of sanitarians in regard to the importation of cholera germs and the entirely preventable nature of the disease, are absolutely correct On the contrary, we believe certain meteorological conditions, over which sanitary measures can exert only a limited control, exert an important influence over all severe and widely spreading epidemic diseases For instance, a continuous high summer temperature with little rain-fall, following high water and thorough soil saturation in the early spring, will be accompanied by a high ratio of sickness and mortality from acute zymotic and infectious diseases of some kind If it be not an epidemic of cholera or yellow fever, it will be such an increase of cholera infantum, cholera morbus, dysentery and typhoid fever, as will destroy nearly as many lives in the aggregate as are usually lost by the prevalence of the more dreaded epidemic pestilences The fact, however, still remains, that, while we cannot control the temperature, the rain-fall, and the atmospheric currents—in other words, the meteorological characteristics of the seasons—we can, by rigid cleanliness, soil drainage, free ventilation, and pure water supply, so far modify the effects of these characteristics as to greatly lessen the aggregate of sickness and mortality in any given community or State And this is true, not merely in seasons of expected epidemics, but in all seasons and all countries To ensure the four important conditions first named, the proper sanitary and hygienic measures must be in force and faithfully executed all the time To vote money contingents, to be used only after the high summer temperature has filled the atmosphere with infectious emanations from a soil contaminated with decomposable vegetable and animal matters that have been allowed to accumulate during the winter and been saturated and macerated in the excess of early spring snow and rain falls, until extraordinary sickness is already developed, is very much like authorizing an expensive lock to be put on the stable door after the horses are stolen The most urgently important lesson that needs to be impressed upon the public mind at this time, is, that the same real sanitary measures which are most efficient in either preventing or mitigating great epidemics, such as cholera and yellow fever, are equally efficient in lessening the prevalence and mortality from the most familiar endemic diseases of every season And consequently, that the most economical and efficient use of money for the protection of the public health, is in the constant enforcement of such measures everywhere, as ensure the most perfect cleanliness, the least accumulation of organic decomposable material in the soil, the best drainage and ventilation, and the purest water supply

American Medical Association and the Railroads —Since the announcement was made, in the

January 31st issue of this JOURNAL, in which it was stated that the Illinois Central Railroad would run a special excursion train of Pullman Palace Cars from Chicago through to New Orleans, leaving the former city at 9 P. M. of April 25, making the trip in thirty-six hours, we have been apprised that an arrangement has been made with the general passenger agents representing the various roads leading to the Crescent City, that the prospects for a magnificent trip are very bright whereby members and their families going south, via the Illinois Central route, will be enabled to return via Mobile, Montgomery, Nashville, Mammoth Cave and Louisville, over the Louisville & Nashville line, or via Meridian, Chattanooga and Cincinnati, over the Cincinnati, New Orleans & Texas line (Queen and Crescent route), or those who prefer may be returned by boat on the Mississippi River as far as Natchez, Vicksburg, Memphis, Cairo, St. Louis, etc.

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All of which will be an inducement for a very large attendance of members living adjacent to this through line, and from the North and Northwestern States, to attend the coming meeting of the American Medical Association, and to visit the World's Fair, that is in progress in New Orleans, which does not close until May 31.

IS THE tolerance of large doses of medicine in certain cases of disease proof that such medicine is indicated?

This question, which was briefly discussed in a previous number of the JOURNAL, has elicited a reply from Dr. Batten, of Pittsburgh, whose letter may be found under the head of Domestic Correspondence. He thinks there is abundant evidence to justify answering the question in the affirmative, but adduces only the well known fact that the more pernicious cases of malarial fever require large doses of quinine, the rather curious allegation that patients with yellow fever demand large doses of quinine and calomel, and that cases of diphtheria tolerate very large quantities of alcohol in the form of whisky and brandy without dying. We suppose quinine is indicated in the treatment of all forms of malarial fevers, not because it is tolerated without apparent effect in either small or large doses, but because clinical experience has shown that it is capable of either neutralizing the malarial poison direct, or of indirectly counteracting its effects on the properties of the blood and tissues. That much larger doses are required and tolerated in the pernicious cases only shows that the malarial poison has so profoundly depressed the susceptibilities of the tissues, that they are capable of responding but feebly to the presence of the quinine, until by other agencies such susceptibilities have been aroused and reaction commenced. The tolerance of unusual doses, therefore, simply indicates diminished sensibility to the action of the drug, and clearly suggests the necessity for the employment of other agents to reestablish such sensibility before the quinine can display its beneficial action in any degree. The same explanation applies to the tolerance of large doses of alcohol in diphtheria, which is a disease preeminently characterized by such alterations in the properties of the blood and the molecular-movements and susceptibilities of the system as to render the patient much less susceptible to the action of alcohol and some other agents, especially during its active stage, than in health. Such want of sensibility to its action, however, neither constitutes proof of its curative influence, nor that a large accumulation of it in the system is not liable to produce injurious and even fatal effects in the declining stage of the disease. Not a few cases have been reported of sudden death from paralysis of the heart after the patient was supposed to be approaching convalescence, and that, too, while they had a full supply of the alcoholic remedies. The points we made before, and repeat now, are: First, that tolerance of unusually large doses of remedial agents in any given case instead of proving such agent to be beneficial really proves a want of susceptibility to its action, and should point us to other agents better adapted to such morbid conditions; and second, that the saturation of the system with very large doses of active medicinal agents during the active stage of acute, self-limited diseases, when the susceptibility of the tissues or sensibility of the nervous systems are blunted, is liable to have a dangerous accumulation of such agents in the system on the decline of the morbid conditions belonging to the disease.

RUSH MEDICAL COLLEGE COMMENCEMENT.—The regular Annual Commencement exercises of the Rush Medical College, of this city, took place in Central Music Hall, on the afternoon of Feb. 17th, 1885.

The Hall was well filled with an appreciative audience, and the ceremonies were of the usual formal and imposing character The degrees were conferred by the President of the College, Prof J Adams Allen, and the general valedictory address was delivered by Prof W H Byford From the report of the Secretary of the Faculty, Prof J H Etheridge, we learn the whole number of students attending the past College term was 401, and the number on which degrees were conferred was 151, the length of the College term, a little less than five months

Dr Thomas N Reynolds, of Detroit, Professor of Materia Medica, Therapeutics and Clinical Medicine in the Detroit Medical College, died at San Antonio, Texas, February 14, from hæmoptysis He was born at Meaford, Ontario, February 2, 1843 He had been for a number of years a member of the American Medical Association He leaves two brothers, Dr Henry J Reynolds, and Dr Arthur R Reynolds, well known physicians of this city, whose loss is an irreparable one

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In the discussion, Dr R Tilly stated that he had seen the peroxide of hydrogen solution used in Paris by Palse as a spray in ovariotomy, and also by Laudolt in dacrocystitis, but saw no manifest advantage from its use that should entitle it to a position of preference over certain well known and well-tried remedies, among which he mentioned permanganate of potassium solution In observations with the preparation, it was of considerable importance to ad-

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Dr W W Allport stated that he had used this remedy in alveolor abscesses and pulpless teeth On filling a cavity of a tooth with the solution, effervescence occurs and assists the cleansing of the cavity

Dr J S Marshall has treated burrowing abscesses when for obvious reasons he did not wish to make an external opening By injecting a solution freely into such a cavity, the relief was much more rapid and satisfactory than with other agents he had used

Dr G Newkirk has used it in cases which were not blind abscesses, and obtained satisfaction He found it difficult to obtain the substance reliable, and to keep it good

Dr Bettman consented to the suggestion of the last speaker that it does not keep well, and that it is of importance to obtain a reliable article He felt sure that its effect on pus was due to the liberation of oxygen when it comes in contact with pus and its associated products

Missed Abortion, by Dr P O'Connell, was the title of the next paper, in which he recited a case, notes of which cover a period of two years The patient was twenty-six years old, and had one child two years old Three months after her last confinement the catamenia appeared This function continued to come on regularly for several months, when it ceased In addition, the other usual symptoms of pregnancy were present Three months from the commencement of pregnancy the patient fell, striking rather heavily on her hands and knees A slight sanguineous vaginal discharge, lasting a few hours, followed the fall After this the abdomen, which had been enlarging, slowly diminished to its normal state, and her health slowly but steadily deteriorated She had almost constant aching, with occasionally a severe pain, and a sensation of the limb "going to sleep" was felt in the left lower extremity She could not lie on the left side

Careful palpation of the hypogastrium gave no evidence of uterine enlargement The left vaginal region was tender on deep pressure On vaginal examination, the finger met the uterus fully one inch lower than normal, with the os and cervical canal *so* patent as readily to admit the index finger The anterior segment of the cervix was thickened Upon bimanual examination, the uterus was found to be somewhat enlarged, but in no wise sensitive

The sound penetrated to a depth of 2½ inches, and to the left There was no hyperæsthesia of the vagina, although its mucous membrane was congested The cervix was also congested and bled freely and readily Ergot and strychnia were prescribed, and soon after the first dose was taken uterine contractions set in, resulting in the expulsion of the mass which was greatly decomposed and abominably ill smelling It had doubtless laid in utero for three months Upon close questioning the patient she said that during August, which was extremely hot part of the time, she frequently felt so cold at night as to require heavy bed coverings to keep warm That she had frequent chills, and once had what would seem a rigor These symptoms with itching, an erratic rash on the skin of the lower abdomen and back, together with malaise and slowly increasing debility clearly pointed to the absorption of septic matter from the cavity of the uterus The pain in the left lower extremity was due to the dead weight of the uterus on the branches of sacrel plexus of nerves The specimen was then exhibited which presented a mummified appearance and consisted of the placenta and two fœti

Muriate of Apomorphia in Chronic Bronchial Asthma, with a report of two cases, is the subject of a paper read by Dr G W Webster

CASE I —Mr G —English, 34 years of age, married, carpenter, has suffered from bronchial asthma, for more than one year He has been a resident of the United States about two years and three months During the past summer, especially at night, he suffered greatly from this difficulty When first called to attend him in December last, he was suffering from asthma and severe attacks of spasmodic coughing spells, and he had been for some days confined to his bed Gave him remedies to overcome the difficulty which did not in some respects afford him the least relief

Apomorphia per orem in gr $^1/_{30}$ every three hours, was given him And the following morning the patient stated that he passed a comfortable night The remedy was then increased to $^1/_{10}$th gr ter die, and the second night he slept well and rested comfortably from this time on whilst taking the drug It was then discontinued, but the attacks recurred, however, with much less severity The remedy was again renewed and with entire relief It was then given him for two weeks, during which time he was up and about and able to follow his trade

It is now four weeks since he ceased taking the drug and there has been no return of the disease

CASE II —Mr B, aged 58, laborer Has had chronic bronchitis with asthma every winter for many years When called to see him in January, found him suffering greatly from dyspnœa, rales were present over the entire chest, and his face and hands were cyanosed, and he was gasping for breath Gave apomorphia in $^1/_{20}$ gr doses every three hours, and the subsequent day he was considerably relieved and could breathe freely The remedy was continued a few days longer with continued relief to the patient, since which the writer had not seen him

D C T Fenn referred to a mismanaged case of "frost bite," and alluded to the ill usage of two of our most efficacious remedies, viz , ice and heat, by their being misapplied at the proper time

Dr R E Starkweather distributed a number of bound volumes of the sixth annual report of the Illinois State Board of Health

The Society then adjourned

LISTON H MONTGOMERY

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, Thursday, February 5, 1885 The President, B F Baer, M D , in the chair

Cervical Pregnancy —Dr E E Montgomery read a paper in which he recounted the history of a case seen by him in consultation with Dr Alexander The patient had been pregnant eight times, the last labor had been terminated by forceps The present pregnancy had lasted three months when she was taken with severe pain and quite profuse hæmorrhage An examination under ether disclosed that the cervix was distended, forming a globular tumor The os, turned backward, was filled up with a tense membrane breaking through it, the cervix was found to be a large cavity in which was the fœtus and its envelopes The body of the uterus appeared like an excrescence upon the distended cervix, it would admit a finger, and was lined by a decidua The membrane below was continuous with the outer mucous membrane of the cervix, so that the remains of it hung as a fringe from the os

This case differed from the few cases of this condition described, in that there was no contraction of the os, in the majority of cases it occurs in primiparæ, and when discovered it was necessary to proceed to artificial measures to make an opening (*The paper will be published entire in the New York Medical Journal*)

Dr Goodell remarked that he had no knowledge of cervical pregnancy One case which had been sent to him as such was epithelial cancer of the cervix How could such a case be diagnosticated without a post mortem examination? Dr Montgomery's hypothesis of an arrested abortion is probably the correct solution of such a case as he has described The fœtus might be forced out of the body of the uterus, and arrested in the cervix by an unyielding os or by cicatricial bands Some years ago a physician of this city, who had a large obstetrical practice, borrowed his ecraseur for the removal of a supposed uterine polypus which proved to be a fœtus in its amniotic sac Dr Goodell had never been able to understand how an experienced man could make such a mistake, but the description of this case of cervical pregnancy has thrown light upon the matter Dr Montgomery's description of the distended cervix would apply very well to uterine polypus with a long pedicle, and a mistake in diagnosis might easily be made

Dr Montgomery questions the primary occurrence of cervical pregnancy He believes the fœtus had originally taken its seat in the body of the uterus and had been forced into its lower position later, but it might be primary, the internal os being patulous, the same conditions that sometimes cause placenta prævia might cause the entire fecundated ovum to be arrested in the cervix

Ruptured Uterus —Dr B F Baer presented the specimens and related the history (which will be found in full in the *American Journal of Obstetrics*) Mrs F , colored, 32 years of age, married ten years, had borne four children at term and had one miscarriage The first child was forceps delivered and was still-born Nov 14, 1884, she was taken in labor A midwife in attendance who pronounced everything correct After a few hours of severe pains, the patient "felt something break in the womb" and labor ceased, but was replaced with sharp pains all over the abdomen, blood escaped in great quantity from the vagina Collapse ensued, and she was thought to be dead, a slow reaction occurred and her attendants waited for labor to begin again Dr Fisher was called to see her ten days after the accident He found her abdomen tender and tympanitic, a mass like the head of a fœtus in the right hypochondriac region The pelvis was empty Temperature, 103° pulse, 108 and small Rupture of the uterus, and escape of the fœtus into the abdominal cavity was diagnosticated Dr Baer was called in and confirmed the diagnosis The patient refused operative assistance and preferred to die in peace, but five days later asked to be relieved Preparations were made for laparotomy An examination per vaginam revealed a gangrenous pus escaping freely and the placenta loose and hanging from the vagina, the hand passed readily through the os uteri and through a tear in the right wall of the cervix into the abdominal cavity and came upon the trunk of the child The latter was extracted through the vagina by version by the feet, it was putrid The parts were well irrigated with carbolized water, and the hand again introduced entered an adventitious sac and nowhere came in contact with intestines or other viscera The uterus was well contracted and quite small The uterus and sac were washed out with carbolized water until it returned pure The patient died of septicæmia ten days after the removal of the fœtus Dr Baer is in full accord with the principles advanced by Dr R P Harris in his paper entitled, "*If a woman has ruptured her uterus during labor, what should be done to save her life?*" *Amer Jour Obst*, *Oct*, *1880*, *p 809*, in which he advises that the abdomen should be opened and the peritoneal cavity thoroughly cleaned In this case, however, nature had protected herself by forming an adventitious cavity, and there could be no reason to open the abdomen to clean this out, as it could be reached from below more directly and without injury to the soft parts

Dr Henry M Fisher —In Germany a distinction is made between lymphatic septicæmia and phlebitic septicæmia In the first form the poison is absorbed by the lymphatics, and inflammation of serous surfaces with exudation is the consequence In the phlebitic form numerous emboli are formed, and hectic fever and local pus formations, the result of these emboli, are found At the autopsy, in this case, pleural and pericardial effusion was found It will be remembered that peritonitis occurred very soon after the rupture

Dr Goodell remarked that he had come intending to criticise Dr Baer's treatment of this case for not resorting to laparotomy, but he found himself agreeing with both Dr Harris and Dr Baer In recent cases laparotomy should always be performed, but in fifteen days an adventitious sac had been formed, and the danger to the patient would have been increased by operation He had seen two cases of rupture of the uterus Both of them occurred in the practice of a physician who never used obstetric forceps, and who had to send four miles for a consultant In the first case peritonitis rapidly supervened, the abdomen became very much enlarged and the fœtus could not be located by palpation The abdomen was not opened After long groping the fœtus was found close under the diaphragm He had great difficulty in extracting it, as the loops of intestines became entangled between its legs, the placenta was also found in the abdomen In the other case the body of the fœtus had escaped into the abdomen, but the head was still in the uterine cavity it was delivered by forceps Both patients died In both cases it would have been far better to have opened the abdomen (*Amer Jour Obst*, Vol x, 1877, p 478)

Dr Harris is in accord with Drs Goodell and Baer as to the proper treatment of the case reported It was too late to do anything when the physician was called The general opinion is coming around to coincide with his way of thinking concerning the propriety of laparotomy in all cases as soon as reaction from the shock of rupture and hæmorrhage has been established Of the cases reported, after such treatment, 50 per cent have recovered One woman has been reported as having ruptured uterus in four successive labors, with delivery per vaginam and without laparotomy, and she survived it all, but such a case is phenomenal Three cases in Europe have been treated by removal of the uterus, as in the Porro operation, they all died There seemed to be no reason for such a method In most cases the split extends through the cervix, and thus free drainage from the abdominal cavity is secured One reason for closing the cervical rent by sutures, is to avoid the danger of cancerous growths, to which that lesion is supposed to give rise

Dr Longaker remarked that many of these cases died from the profound shock and hæmorrhage immediately following the accident Two cases in his experience had died within two hours, one of them undelivered

Dr Baer was glad to hear Dr Harris make the distinction as to the propriety of laparotomy in his case, where the patient was not seen until fifteen days after the accident and was suffering from septicæmia He had intended to perform laparotomy, and was prepared for it, but when he found the newly developed sac he changed his plan, as he thought nothing could be gained by it

Ovarian Cysts —Dr Baer exhibited two ovarian cysts Mrs B, widow, entered my private hospital December 18, 1884 She commenced eight months before to suffer from frequent calls for micturition, with severe scalding pains, symptoms apparently of cystitis and urethritis The uterus and ovaries were in good position, and seemed normal, but two weeks later there was a burning pain in both ovarian regions, with a perceptible bulging, largest on the right side The menses had ceased, and the doctor in attendance suspected pregnancy, but exposure was denied at that time The abdomen enlarged rapidly, and the patient finally acknowledged the possibility of pregnancy, and thought she felt movements of the fœtus. At seven months uterine hæmorrhage commenced, and continued every day, the mammæ were atrophied, there were no signs of the presence of a fœtus, there was some fluctuation, the sound was passed, and the uterus was found empty, and not enlarged, the face was wasted, and had an anxious expression, and the pulse was quick A diagnosis of ovarian cyst was now made A deep, diagonal sulcus could be made out in the abdominal tumor, the largest portion being on the right side, the tumor was smooth surfaced and without nodules The cervix was soft, patulous, high up, and drawn to the left. When the tumor was moved the uterus moved with it, as shown by the handle of the sound Immediate operation was advised and performed Incision three and one-quarter inches, two large tumors were revealed, both were tapped, the left which was free from adhesions, was withdrawn without difficulty, its pedicle transfixed, ligated and dropped The larger tumor, although free from abdominal adhesions, could not be drawn out, and it was found to be very tightly adherent to the uterus. which seemed to be one mass with it As the fluid drawn from this tumor was clear, it is not improbable that it was a cyst of the broad ligament It became necessary to enucleate the cyst, and a long gaping wound was left in the broad ligament, this was transfixed and tied as a pedicle, but after the final division had been made the ligature slipped and the hæmorrhage was immense, the hæmastatic forceps were applied temporarily, and the bleeding points were firmly secured The wound in the broad ligament was closed by ten interrupted sutures The operation lasted two and a half hours, the patient collapsed, and he feared she would die on the table, but she reacted, and recovery was uninterrupted, the patient sat up in two weeks An incident which occurred on the fourth day shows the necessity of the proximity of a physician or thoughtful nurse A scream from the patient, an announcement of a sudden pain on the right side, the patient said something seemed pulling inside of her Dr Baer was near, and was called He feared internal hæmorrhage, but at once inquired how long it had been since she had passed water, four hours, the catheter was immediately used, and complete relief was secured After this the catheter was not required until the tenth day, but from the tenth to the twentieth day there was entire inability to pass water except by the assistance of the catheter She went home on the twenty-third day

The points of special interest in this case are

1st The patient being entirely well, symptoms of gonorrhœa presented themselves, and were followed by—

2d Amenorrhœa for seven months, followed by—

3d Daily hæmorrhages for one and a half months

4th Ovaritis and large tumors forming in eight and a half months from the initial symptoms

Dr Beates —A young lady was obliged to separate from her husband one month after marriage in consequence of domestic trouble, her menses continued regular, but her abdomen enlarged as rapidly as if she were pregnant, her health failed, and at the expiration of nine months an ovarian tumor was removed, recovery was complete and rapid

In another case he found numerous omental and enteric adhesions which were easily separated, but pelvic adhesions required enucleation of the cyst, which left a large V shaped wound in the broad ligament, as described by Dr Baer Hæmorrhage was very free, in trying to dissect off the tumor from the fundus of the uterus, that organ was badly wounded, the cavity was opened, and required to be closed by sutures Great tympany followed this operation, and breathing became almost impossible, the patient recovered

Calculi in the Female —Dr J W Snowden exhibited the stones and related the history of the case He was called, June 1, 1884, to see Mrs L aged 23 years She was born and had resided in a limestone region in New York Up to 13 years of age she was troubled with enuresis, wetting the bed almost nightly After this she ceased passing her urine during sleep, but was obliged to rise for this purpose two or three times during the night She could not retain her urine night or day after the desire to pass it came on If she could not reach a convenient place she would wet her clothes

She married when seventeen years old Two months after marriage she began to have cystic irritation and soon passed sabulous matter and small calculi These symptoms continuously increased Physicians whom she consulted said she had catarrh of the bladder, but none made an examination for stone Once she was obliged to call on a medical man to remove a calculus which had become impacted in the urethra

Two years ago she spent a summer in New Jersey, during which time she passed no gravel but the irritation of the bladder continued When I first saw her she was urinating very frequently with more or less pain She passed stones daily with a great deal of sabulous matter The urine looked as if there was a quantity of ordinary sand in the bottom of the vessel I proposed an examination for stone, which she refused peremptorily I gave her benzoic acid, which entirely stopped the passage of the sabulous matter and relieved her in every way, but she still occasionally passed a small calculus This marked relief lasted two or three months, when the irritation of the bladder became worse than ever She could only pass her urine in an erect position and with as much effort as a woman in labor I insisted upon an examination for stone, but the slightest touch excited such intense pain, even when she was well etherized, that, being alone, I could not manage her and I sent for Dr B F Baer in consultation

A calculus measuring about one and a half inches in its longest diameter was found in the bladder and removed by Dr Baer after rapid dilation of the urethra This afforded marked relief and she soon seemed entirely cured, but in a short time her urine began to dribble continually while she was in the recumbent position at night During the day she retained and passed her urine naturally I advised her to get up at stated intervals and empty her bladder, which has gradually relieved this trouble She is now quite well, except that she urinates rather more frequently than is natural

STATE MEDICINE

AMERICAN PUBLIC HEALTH ASSOCIATION.

SECRETARY'S OFFICE, CONCORD, N H, Jan 7, 1885

PRELIMINARY CIRCULAR —The thirteenth annual meeting of the American Public Health Association will be held at Washington, D C, December 8–11, 1885

The executive committee have selected the following topics for consideration at said meeting

I The best form in which the Results of Registration of Diseases and Deaths can be given to the Public, in weekly, monthly and annual reports

II The proper Organization of Health Boards and Local Sanitary Service

III Recent Sanitary Experiences in connection with the Exclusion and Suppression of Epidemic Disease

IV Healthy Homes and Foods for the Working Classes (See Lomb Prize Essays)

V The Sanitary Conditions and Necessities of School Houses and School Life (See Lomb Prize Essays)

VI Disinfection and Individual Prophylaxis against Infectious Diseases (See Lomb Prize Essays)

VII The Preventable Causes of Disease, Injury and Death in American Manufactories and Workshops, and the best means and Appliances for Preventing and Avoiding them (See Lomb Prize Essays)

All persons who propose to present papers at the next annual meeting (prize essays excepted as per conditions elsewhere given) must place the same in the hands of the Secretary at least three days before the commencement of the annual session, as such papers must be examined by a committee before being read This rule will be rigidly enforced, and all authors must be governed by it After Dec 1, 1885, papers must be sent to the Secretary at Washington, D C, care of Dr Smith Townshend, Chairman Local Committee of Arrangements Active and associate members have equal rights in the presentation and discussion of papers The Local Committee of Arrangements is already organized, and active work begun to make the next meeting a large and successful one

The generous prizes offered by Mr Henry Lomb will tend to awaken an increased interest in the great work which this Association has for years been successfully prosecuting, and will add much to the already more than national reputation of its beneficent undertakings

The cooperation of all persons interested in the public health, or in any subject allied to sanitary science, is respectfully solicited A circular giving full and concise information regarding local matters, programme, transportation, etc , will be issued in due season before the meeting

The Lomb Prize Essays —Mr Henry Lomb, of Rochester, N Y , has offered through the American Public Health Association, the sum of two thousand eight hundred dollars, to be awarded as first and second prizes for papers on the following subjects, and according to conditions mentioned elsewhere

I Healthy Homes and Foods for the Working Classes First prize, $500 , second prize, $200

Essays to be of a practical character, devoid as far as possible of scientific terms They must be within the scope and understanding of all classes, and designed especially for a popular work

Judges —Dr E M Moore, Pres State Board of Health, Rochester, N Y , Dr C W Chancellor, Sec'y State Board of Health, Baltimore, Md , Medical Director Albert L Gihon, U S Navy, Washington, D C , Dr J H Raymond, Health Commissioner, Brooklyn, N Y , Major Charles Smart, Surgeon U S A , Washington, D C

II The Sanitary Conditions and Necessities of School Houses and School Life First prize, $500 , second prize, $200

The object and intention of these essays is to furnish instruction to those having the care of common schools construction of buildings, hygienic conditions, management etc , as well as valuable knowledge to teachers and parents upon matters allied to school interests

Judges —Hon Erastus Brooks, LL D , State Board of Health, New York, Dr H P Walcott, State Board of Health, Lunacy and Charity, Cambridge, Mass , Dr Granville P Conn, Pres State Board of Health, Concord, N H , Hon John Eaton, Commissioner of Education, Washington, D C , Col George E Waring, Jr , C E , Newport, R I

III Disinfection and Individual Prophylaxis against Infectious Diseases First prize, $500 , second prize, $200

This subject will embrace the kinds, value and relative merits of disinfectants, as well as the methods of use Also the means that may be employed by the individual to avoid contagious and infectious diseases

Judges —Dr S H Durgin, Health Officer, Boston, Mass , Dr J E Reeves, Secretary State Board of Health, Wheeling, W Va , Dr Gustavus Devron, Pres Aux San Ass'n, New Orleans, La , Prof Richard McSherry, M D , Baltimore, Md , Prof James L Cabell, LL D , University of Virginia, Va

IV The Preventable Causes of Disease Injury and Death in American Manufactories and Workshops, and the best Means and Appliances for Preventing and Avoiding them First prize, $500 , second prize, $200

Under this head, the conditions and necessities of the American mechanic are to be especially considered, and the thorough consideration of a class will be regarded of more value by the judges than a superficial review of the whole field Original investigations will weigh much in awarding the prizes, while compilations from existing literature or foreign statistics will not find favor with the judges

Judges —Dr E M Hunt, Secretary State Board of Health, Trenton, N J , Dr A N Bell, Editor *Sanitarian*, New York City, Major George M Sternberg, Surgeon U S A , Baltimore Md , Major John S Billings, LL D , U S A , Washington, D C , Mr W P Dunwoody, Secretary National Board of Health, Washington, D C

Conditions All essays written for the above prizes must be in the hands of the Secretary, Dr Irving A Watson, Concord, N H , on or before Oct 15, 1885 Each essay must bear a motto, and have accompanying it a securely sealed envelope containing the author's name and address, with the same motto upon the outside of the envelope A caligraphic copy of each essay will be made by the Secretary and placed in the hands of the judges, so that they will be totally ignorant as to the author

After the prize essays have been determined upon, the envelopes bearing the mottoes corresponding to the prize essays will be opened, and the awards made to the persons whose names are found within them The remaining envelopes, unless the corresponding essays are reclaimed by authors or their representatives within thirty days after publication of the awards, will be destroyed unopened by the Secretary

The judges have been selected by the American Public Health Association, the Conference of State Boards of Health, and the National Board of Health, and are empowered to reject all papers if in their opinion none are worthy of a prize The essays awarded, the prizes are to become the property of the American Public Health Association

None of the judges will be allowed to compete for a prize on the subject upon which they are to pass judgment

The judges will announce the awards in the second week of December, 1885, at the annual meeting of the American Public Health Association

It is intended that the above essays shall be essentially American in their character and application, and this will be considered by the judges as an especial merit

Competition is open to authors of any nationality, but all the papers must be in the English language

It is expected that arrangements can be made to have these essays widely distributed to the public, and to the persons mostly interested in the respective subjects in the United States The American Public Health Association earnestly appeals to those able to compete to take part in this work, which it is believed will do much to augment the health, comfort, and happiness of the people

Per order Executive Committee,
IRVING A WATSON, *Sec'y*

OFFICERS AND COMMITTEES OF THE AMERICAN PUBLIC HEALTH ASSOCIATION, ORGANIZATION, 1884–85

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REPORT FROM INDIANA

BY GEORGE SUTTON, M D, AURORA, IND

Presented in the Section of State Medicine and Hygiene of American Medical Association, May, 1884

As has already been reported to the American Medical Association, the Legislature of the State of Indiana established a State Board of Health in 1881, with subordinate boards in each county, township, and city in the State As the work was new, there was some difficulty, at first, in getting the different boards of health in good working order, but as the officers and physicians become accustomed to their duties, the work becomes more efficient, and in reporting progress at the present time, we can say that last year, reports were received from every county in the State, with the exception of two, and a large amount of valuable statistical matter has been collected The statistics, however, are yet imperfect, and must necessarily be so until not only every county, but every township physician and midwife in the State is heard from We feel in hopes, however, as the work is now progressing favorably, that we shall soon be able to approximate accuracy, and present to the profession statistical matter of the utmost value

Much has yet to be done in the State of Indiana by State and county legislation to meet the wants of the people We require more convenient and better hospital accommodations Most counties have what is called the Poor House, a department of which is assigned for the accommodation of the sick The Poor House is generally situated upon a farm, and in many instances at a remote distance from the principal towns and cities in the county As an instance, we give Dearborn county, which will represent the condition of many other counties in the State, this county contains upwards of 30,000 inhabitants In the county there are Lawrenceburgh, Hardingtown, Aurora, Cochran and Wilmington, towns and villages all within a few miles of each other Our Poor House, however, with accommodations for the sick, is on a farm at a remote distance, between eight and ten miles from the nearest town and several miles from the nearest physician, and in wet weather when the roads are muddy is almost inaccessible As it is from the towns and cities that three-fourths of the paupers are sent to the hospital, efforts have been repeatedly made by the Dearborn County Medical Society to procure a change, and have a hospital where it would be more accessible To show the necessity of this change, only a few weeks since a patient who had been sick with typhoid fever about twenty days, was sent by the township trustees of Washington township nearly fifteen miles over rough roads to the Poor House, the consequence was that he died the next day The attending physician at the Poor House, Dr Kyle, has given me a note which speaks for itself

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* Deceased

The subject several years ago was regarded of so much importance that we presented to the County Medical Society a series of resolutions, which were unanimously adopted, and a committee of physicians appointed to confer with the County Commissioners These resolutions in a few words express what we believe to be the wants of many counties in the State In the preamble it is stated that the members of the County Medical Society believe that they understand and know the wants of the county in relation to the sick better than any other class of our citizens, and consequently they consider it their duty to present to the Commissioners what is needed They state in these resolutions that as the great object of a hospital is the restoration of patients to health, it should be not only in a healthy location, but easily accessible to that portion of the country that furnishes the largest number of patients That Lawrenceburgh and Aurora, cities situated near each other and rapidly increasing in population, do furnish more than three-fourths of the patients, and certainly require at the present time a hospital that will be convenient to each city

That these cities are now large enough to require a hospital easily accessible, each city should have a light ambulance wagon kept under the control of the township trustee for the easy removal of the sick, or those who have received severe injuries or require public aid, to the hospital

That the County Hospital should be under the control of an intelligent physician, or physicians, who may be easily procured in cases of emergency,—this, we know, would always be the case if the hospital was situated near the cities of Aurora and Lawrenceburgh, or our large cities

That in cases of railroad or steamboat accidents, or accidents occurring at the mills, foundries or machine shops in our cities, when a number of persons are injured, we want a hospital easily accessible, where patients can immediately receive the proper medical and surgical treatment

That this hospital may be made the proper place for the treatment of dypsomania, where patients may be kept under the management of an intelligent physician until self control or the will power is restored

That Dearborn county, and other counties, not only require a change at the present time in their hospital accommodations, but also the erection of pest houses, separate from the hospital for the protection of our citizens from the spread of contagious and infectious diseases, such as small-pox, typhus fever and other infectious diseases

Had a patient from the South, unwell with the incipient stages of yellow fever during the epidemic, been landed within our county from a railroad car, or a steamboat ascending the river from the South, it is almost impossible to estimate the consequences from the loss of life, and loss to our citizens in a business point of view, that possibly might have occurred from the spread of the infection [Without taking into consideration the loss of life, it has been estimated that in the year 1878, more than 160,000,000 of dollars was lost to the inhabitants of the Mississippi Valley, below the mouth of the Ohio river, by the prevalence of the yellow fever] We know that from the introduction and spread of this disease near Gallipolis, the inhabitants of the Ohio Valley may, under certain circumstances, suffer the fatal and depressing consequences of this pestilence A committee was appointed to confer with the County Commissioners, but as a farm had been purchased, the Commissioners were not disposed to make any change We present these views to show what we believe to be absolutely needed in our State —a change in our hospital accommodation

STATE HOSPITAL

There will probably be an effort made at the next meeting of the Indiana State Medical Society to procure, through the Legislature, the erection of a large State Hospital at Indianapolis, for the treatment of the sick Although such a hospital would be of local benefit, and might be of benefit in the treatment of chronic diseases, it must be obvious that most of the cases requiring medical treatment cannot be transported safely from distant and different parts of the State It would certainly be impracticable to transport patients laboring under acute diseases a very great distance, many of whom would die before they could be got to the hospital, or those suffering from contagious or infectious diseases, the removal of whom would endanger the public, or those surgical cases arising from accidents requiring immediate treatment, such as the reduction of dislocations, replacing of fractures, and dressing of wounds, etc , etc , all of which might be removed a short distance to a county hospital, therefore, at the present time we consider that it is an improvement in our local county hospitals that is most needed in Indiana

TO REGULATE THE PRACTICE OF MEDICINE

For several years the subject of State legislation in reference to the practice of medicine in Indiana has been brought before the State Medical Society Committees have been appointed, bills have been drafted, but nothing has yet been accomplished except the agitation and discussion of the subject As it would be impossible at the present time to procure the passage of a bill by our Legislature, that would exclude all from the practice of medicine except the regular well educated physician, a portion of the members of our State Medical Society have been in favor of a bill that would exclude hereafter all from the practice of medicine except those who have received diplomas from the schools or colleges of their respective systems of medicine They would place all the different systems of medicine upon the same equality in the eye of the law for the purpose of preventing persons from practicing medicine in the regular profession without being properly qualified Others again, regarding the regular system of medicine as the only true system, being founded upon the accumulated experience of 2,000 years, consider that the object of the law should be to protect the public against that which they believe to be wrong, such as that which our Code of Ethics regards as errors, delusions, or false systems of medicine, and which does not allow the members of the regular profession to even consult with members of those systems, or in any way recognize them as members of the medical profession They consider that the State Medical Society, composed of regular physicians, would be acting inconsistently to ask the Legislature through their committee to pass a law by which all the different systems and delusions in medicine would be put upon the same equality with the regular profession

The difference of opinion upon this subject has been one of the principal difficulties in procuring a law to regulate the practice of medicine in Indiana, and we would certainly like to hear gentlemen express their opinion whether, as regular physicians, we can consistently go before the Legislature and ask for a law that will protect that which we believe to be wrong—that which we believe erroneous, and that which we believe to be false, for the purpose of preventing individuals who are not properly qualified from practicing in our own system of medicine Is it not asking to legalize one evil to prevent another?

DISEASED MEAT

Another subject that requires legislation in our State, is the passage of a law to more effectually protect the public against the sale in our markets of diseased meat We know at the present time that there is a desire to suppress facts in relation to the existence of trichina in our pork, but after an experience of ten years, in which I have examined a large amount of pork, I can say that from 3 to 16 per cent of the hogs in South-eastern Indiana are infected with this parasite The prevalence of the disease amongst the hogs varies greatly in different localities I know that in one instance pork that was brought to my office by a farmer for examination was found to be filled with trichina This pork, instead of being used in his family, we have the most conclusive evidence was at once shipped to Cincinnati, and sold in the market A few years ago I presented a report to the Indiana State Medical Society, in which I collected some facts Drs Harding and Robbins, of Lawrenceburgh, informed me that they had microscopically examined specimens from 245 different hogs slaughtered in the vicinity of Lawrenceburgh, and found trichina present in 40 of the specimens, making about 16⅓ per cent of all examined Drs Gatch and Miller, of Lawrenceburgh, also informed me that they had examined with a microscope 200 hogs killed for pork, and found trichina in 13, making about 6 per cent Dr G V Stevenson, of Rising Sun, also wrote to me that he had found trichina in pork killed in Ohio county, and Dr Sale, of Dillsborough, told me that he found trichina in pork killed in that section of country

We have seen notices recently in the newspapers that trichina had been discovered, and that trichinosis had prevailed at Liberty, South Bend, Fort Wayne, Decatur, and other places in Indiana, and it is more than probable that many cases of sickness which are diagnosed as typhoid fever, chronic diarrhœa, etc , are produced from trichina

When we bear in mind that upwards of 5,000,000 of hogs are slaughtered and packed in the Western States, not including those which are put up for family use by the farmers, that if 4 per cent of this pork is diseased, which we believe to be a low estimate, we have 221,484 diseased hogs put annually upon the market, or, at an average of 200 pounds to the hog, 44,296,800 pounds of diseased meat, every ounce of which, under favorable circumstances, is capable of producing disease

From these facts we think, as this disease prevails in our State to a considerable extent, that a law should be passed in the State of Indiana to prohibit the sale of pork in our markets unless it bears the stamp of having been examined by a properly authorized meat inspector and found free from disease

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BERLIN, Jan 28, 1885

At a meeting of the Physiological Society, the Director of the chemical laboratory of the Physiological Institute, stated that he had discovered a new element in the pancreatic juice which he called *Adenin* It belongs to the same group as guanine and exanthine Its chemical formula is $C_5 H_5 N_5$ He utilized 42 litres of a watery pancreatic extract in finding it With water of hydration it forms long, needle form crystals It dehydrates when exposed to the atmosphere With the various acids it forms salts

A CASE OF OVARIOTOMY IN A PATIENT WITH HYSTERICAL HEMIANÆSTHESIA

I am indebted to Dr L Landau for the details of this most interesting case I had the pleasure of seeing the patient at his office a few days ago, and could personally verify the points of the paper published by himself and Dr E Remak on this subject (*Zeitsch fur Klin Med Bd*, VI H 5)

The patient's father died of brain disease She herself was in good health up to 15 years old, when she was wounded on the right half of the forehead by a blow from a stone In the same year she fell into the water, which brought on an attack of pneumonia, since which time she has often spit blood Menstruation appeared at 18, remained irregular for a year, and ceased altogether at 46 After a second attack of inflammation of the lungs, at 20 years of age, she had pain in the groin, paralysis and anæsthesia in the left leg, so that she could neither walk nor stand At that time Von Mitscherlich made out a painful swelling in the left groin This he treated antiphlogistically, and the paralysis of the left leg with the induced current, which enabled her to go about with two crutches At 29 years of age she came to R Remak, having for nine years suffered with anomalous pains, such as a bending of the outstretched tongue to the right, obstinate aphonia, an attack of dyspnœa, serious emesis, painful cough, the Poor House, Dr Kyle, has given me a note which speaks for itself

The subject several years ago was regarded of so much importance that we presented to the County Medical Society a series of resolutions, which were unanimously adopted, and a committee of physicians appointed to confer with the County Commissioners These resolutions in a few words express what we believe to be the wants of many counties in the State In the preamble it is stated that the members of the County Medical Society believe that they understand and know the wants of the county in relation to the sick better than any other class of our citizens, and consequently they consider it their duty to present to the Commissioners what is needed They state in these resolutions that as the great object of a hospital is the restoration of patients to health, it should be not only in a healthy location, but easily accessible to that portion of the country that furnishes the largest number of patients That Lawrenceburgh and Aurora, cities situated near each other and rapidly increasing in population, do furnish more than three-fourths of the patients, and certainly require at the present time a hospital that will be convenient to each city

That these cities are now large enough to require a hospital easily accessible, each city should have a light ambulance wagon kept under the control of the township trustee for the easy removal of the sick, or those who have received severe injuries or require public aid, to the hospital

That the County Hospital should be under the control of an intelligent physician, or physicians, who may be easily procured in cases of emergency,—this, we know, would always be the case if the hospital was situated near the cities of Aurora and Lawrenceburgh, or our large cities

That in cases of railroad or steamboat accidents, or accidents occurring at the mills, foundries or machine shops in our cities, when a number of persons are injured, we want a hospital easily accessible, where patients can immediately receive the proper medical and surgical treatment

That this hospital may be made the proper place for the treatment of dypsomania, where patients may be kept under the management of an intelligent physician until self control or the will power is restored

That Dearborn county, and other counties, not only require a change at the present time in their hospital accommodations, but also the erection of pest houses, separate from the hospital for the protection of our citizens from the spread of contagious and infectious diseases, such as small-pox, typhus fever and other infectious diseases

Had a patient from the South, unwell with the incipient stages of yellow fever during the epidemic, been landed within our county from a railroad car, or a steamboat ascending the river from the South, it is almost impossible to estimate the consequences from the loss of life, and loss to our citizens in a business point of view, that possibly might have occurred from the spread of the infection [Without taking into consideration the loss of life, it has been estimated that in the year 1878, more than 160,000,000 of dollars was lost to the inhabitants of the Mississippi Valley, below the mouth of the Ohio river, by the prevalence of the yellow fever] We know that from the introduction and spread of this disease near Gallipolis, the inhabitants of the Ohio Valley may, under certain circumstances, suffer the fatal and depressing consequences of this pestilence A committee was appointed to confer with the County Commissioners, but as a farm had been purchased, the Commissioners were not disposed to make any change We present these views to show what we believe to be absolutely needed in our State —a change in our hospital accommodation

STATE HOSPITAL

There will probably be an effort made at the next meeting of the Indiana State Medical Society to procure, through the Legislature, the erection of a large State Hospital at Indianapolis, for the treatment of the sick Although such a hospital would be of local benefit, and might be of benefit in the treatment of chronic diseases, it must be obvious that most of the cases requiring medical treatment cannot be transported safely from distant and different parts of the State It would certainly be impracticable to transport patients laboring under acute diseases a very great distance, many of whom would die before they could be got to the hospital, or those suffering from contagious or infectious diseases, the removal of whom would endanger the public, or those surgical cases arising from accidents requiring immediate treatment, such as the reduction of dislocations, replacing of fractures, and dressing of wounds, etc , etc , all of which might be removed a short distance to a county hospital, therefore, at the present time we consider that it is an improvement in our local county hospitals that is most needed in Indiana

TO REGULATE THE PRACTICE OF MEDICINE

For several years the subject of State legislation in reference to the practice of medicine in Indiana has been brought before the State Medical Society Committees have been appointed, bills have been drafted, but nothing has yet been accomplished except the agitation and discussion of the subject As it would be impossible at the present time to procure the passage of a bill by our Legislature, that would exclude all from the practice of medicine except the regular well educated physician, a portion of the members of our State Medical Society have been in favor of a bill that would exclude hereafter all from the practice of medicine except those who have received diplomas from the schools or colleges of their respective systems of medicine They would place all the different systems of medicine upon the same equality in the eye of the law for the purpose of preventing persons from practicing medicine in the regular profession without being properly qualified Others again, regarding the regular system of medicine as the only true system, being founded upon the accumulated experience of 2,000 years, consider that the object of the law should be to protect the public against that which they believe to be wrong, such as that which our Code of Ethics regards as errors, delusions, or false systems of medicine, and which does not allow the members of the regular profession to even consult with members of those systems, or in any way recognize them as members of the medical profession. They consider that the State Medical Society, composed of regular physicians, would be acting inconsistently to ask the Legislature through their committee to pass a law by which all the different systems and delusions in medicine would be put upon the same equality with the regular profession.

The difference of opinion upon this subject has been one of the principal difficulties in procuring a law to regulate the practice of medicine in Indiana, and we would certainly like to hear gentlemen express their opinion whether, as regular physicians, we can consistently go before the Legislature and ask for a law that will protect that which we believe to be wrong—that which we believe erroneous, and that which we believe to be false, for the purpose of preventing individuals who are not properly qualified from practicing in our own system of medicine. Is it not asking to legalize one evil to prevent another?

DISEASED MEAT.

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The patient's father died of brain disease. She herself was in good health up to 15 years old, when she was wounded on the right half of the forehead by a blow from a stone. In the same year she fell into the water, which brought on an attack of pneumonia, since which time she has often spit blood. Menstruation appeared at 18, remained irregular for a year, and ceased altogether at 46. After a second attack of inflammation of the lungs, at 20 years of age, she had pain in the groin, paralysis and anæsthesia in the left leg, so that she could neither walk nor stand. At that time Von Mitscherlich made out a painful swelling in the left groin. This he treated antiphlogistically, and the paralysis of the left leg with the induced current, which enabled her to go about with two crutches. At 29 years of age she came to R. Remak, having for nine years suffered with anomalous pains, such as a bending of the outstretched tongue to the right, obstinate aphonia, an attack of dyspnœa, serious emesis, painful cough, sometimes cramps all over the body The severity of the general pains and the intensity of the pain in the groin swelling, were coincident and equal in degree At 28 years, after much pain she had an attack of paralysis of the left arm, which R Remak attributed to neuritis, and treated this as well as the other symptoms with the galvanic current In January, 1860, Dr E Martin, after making a digital examination, made out a fluctuating tumor in the left iliac fossa, which he diagnosed as an ovarian tumor of the left side After the examination she was seized with much pain and vomiting After applications of the galvanic current to the groins and back, the patient had no more vomiting or dyspnœa, mobility and sensibility returned to the left leg, and she was able to walk, first with one crutch, then without any crutch, and could even stand alone for a short time upon the left foot In May, 1862, she was suddenly seized with photophobia and blepharospasmus duplex, which A V Graefe diagnosed on the spot as pressure on the fifth pair of nerves, and of the zygomatico-temporal nerves Remak believed all of her troubles started from some derangement of the sympathetic, and diagnosed *hysteria* P Guttmann, writing in 1865 about this same woman traced her nervous troubles to the cicatrix on the left side of the forehead She was daily at Griesinger's clinic for nervous diseases, at Charite, from 1865 to 1868, and he diagnosed hysteria with exaltation In 1867 the cicatrix was excised, as the patient had much pain in that region, and in 1868 the right supra-orbital nerve was resected, after which the general cramps disappeared and never came back, and sensibility of the right half of the body returned From 1868 to 1882 the patient was not in any hospital, and was able to work somewhat with her hands As the woman came under our notice she had complete aphonia (laryngoscopic examination showed deficient closing and tension of the vocal cords during phonation), subjective dyspnœa, with rapid respiration, (fifty per minute), no objective signs in the heart or lungs, pain in the groin swelling, and therefrom the sickness and nausea seemed to extend to the stomach and throat Here it may be remarked that the galvanic current from the tumor to the legs relieved the symptoms, so that the interesting observation was made that after the spontaneous pains and the pain upon pressure over the ovarian swelling to a certain extent got better, analogous pains and symptoms set in on the right side of the belly, with spreading aura and vomiting This lasted for a short time, and then everything returned to the primary condition On the entire left side of the body to the middle line there is loss of sensibility (subjective and objective), on the right side it is normal The left side is not appreciative of strong electrical currents, of the puncture of a pin, of heat or cold, or of sticking a needle well into the flesh This *hemanæsthesia sinistra* extends to the middle line of the mucous membrane of the nose, mouth, tongue, vagina, etc The sense of taste and the sense of smell on the left side are absent, but the patient *hears* better with the *left* ear than with the *right* (right ear, watch at 39 ctm, left ear 105 ctm), and sees better with the *left* eye than with the *right* (right 4 200, left 9 200) The left conjunctiva is anæsthetic Frequent examinations with the galvanic and Faradic currents made no change in the hemianæsthesia Metalloscopy, magnetoscopy and examinations under an anæsthetic and with static electricity made no change From this one might conclude, with M Rosenthal, that it was a case of hemianæsthetic torpor of one half of the brain With the application of the galvanic current to the right side of the head, using a diminishing current, flashes of light appeared in right eye, and giddiness was apparent when the current was passed through the brain, but no acoustic symptoms were developed In passing a current of ten milliamperes through the left half of the brain there was not the slightest trace of giddiness and no flashes in left eye Some motor troubles in the neighborhood of the cerebral nerves may be noticed Slight ptosis on both sides, partial paralysis and oculo motor disorders and atypical double sight, diminution of distance in field of vision The patient wears a glass with a dim blue glass on left eye to correct the diplopia When the mouth is opened the left corner is drawn down, but there is no well defined facial paralysis The uvula points strongly to the left, while the velum moves regularly up and down The tongue points to the left, and moves in a circle from left to right, which both R Remak and P Guttmann have said surpasses anything in their experience in point of rarity and interest There is no disturbance of speech or deglutition The leg on the left side is 1 to 1 5 ctm smaller than on the right side, and is somewhat colder Motor weakness is plainly observable There is no rigidity Tendon reflex is alike on both sides, the foot reflex is not seen The gait of the patient is very strange and has no resemblance to ordinary hemiplegia While she cannot move a step without a crutch, with the left shoulder braced up, she walks along rapidly, bringing the right leg around in a circle in a long sweep, and simulating with the crutch the movements of the left leg, which hangs helplessly at the side With her eyes shut she cannot move the left foot, but with eyes open she can use the left paralytic hand for little things, even though not controlled by the eyes On October 15, 1882, a large dermoid cyst was removed by laparotomy The results were negative Patient complained greatly of pain in the index and middle fingers of the left hand The movement and anæsthesia of the left leg became worse, and she complained greatly of pain in the left groin Three months after the operation, pressure over the right ovary, or bimanual pressure over the stomach or liver occasions no pain but the moment that pressure is made over the left ovarian region the patient is thrown into great pain and semi-convulsions, and not only this region, but the whole left half of the belly The loins under the musculus quadratus lumborum, over the crista ossis ilei, and the os descendeus pubis, over the left half of the pudenda, is anæsthetic, and with pain irradiating from a center upon pressure In November, 1882, the patient went to the hospital at Moabit Large blisters were applied over the left hypogastrium It was interesting to notice that, although a pin might be run through the flesh without pain, yet within the blister the least touch produced the greatest agony. I saw the patient on January 23, 1885. She came into Dr. Landau's office leaning upon a crutch, and wheezing like a person with an attack of asthma. Her respiration was rapid and shallow, her speech jerky, and there was well-marked aphonia. When she tried to speak she brought on a severe fit of coughing. Pressure over the left ovarian region was attended with no symptoms whatever. Pressure over the right ovary set up a modified convulsive spasm, and the patient complained of much pain, although Dr. Landau said that the ovary was gradually becoming less sensitive. *Pressure over the liver* was attended with great pain and muscular contortion. This feature is of recent origin. There is an absolute anæsthesia of the left half of the body, including the mucous membranes on that side. A needle was pushed through the flesh of the leg and arm, of the stomach and chest, and into the nipple, without any sign of pain. The conjunctiva, the mucous membrane of nose, mouth, and vagina were all equally anæsthetic up to the median line. The hemianæsthesia is absolute and complete. Sense of smell and of taste on left side of nose and tongue are *nil*. Take it for all in all, this case, which has engaged the attention of physicians and poli-kliniks in Berlin for many years, is as interesting in all its particulars as any one that I know of.

H. R. B.

DOMESTIC CORRESPONDENCE.

PITTSBURGH, PA.

EDITOR OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Dear Sir:—You spring the question in your editorial of the JOURNAL of Feb. 7, 1885, Is tolerance of unusually large doses in any acute disease during its progress evidence that the remedy is indicated or acting favorably? Now this question is of interest to the medical profession at large, and as we can come to no conclusion except through facts and observations gathered at the bedside by the general profession, I take this opportunity to direct your attention to a few acute diseases, the treatment of which will prove conclusively the affirmative of your interrogation. It is well known to those who have treated yellow fever that there is a great tolerance and even demand on the part of the patient suffering from this disease for calomel and quinine, in large doses, and I can truthfully testify that these were *the* remedies I depended on the most in carrying my patient safely through the disease. Quinine and calomel, in large doses, were indeed the sheet anchors in this disease. It is well known by those who have treated malarial congestive chills, or the so-called pernicious fever, how much the patient's life depends on large doses of quinine at stated intervals just after the reaction from the first chill.

Now let us examine the effect of alcohol in diphtheria. It has been broached, if not asserted, that alcohol acts as a micrococci-cide. If it be true that alcohol is a killer of these germs which are claimed to be the cause of diphtheria, then if there be great tolerance on the part of the patient to alcohol why not administer it? Alcohol no doubt is an antiseptic in diphtheria, we know it is a stimulant. If it acts beneficially in either of these three ways it must do good. About two weeks ago my attention was called to the amount of whisky that was administered to four children in the same family suffering with diphtheria. The four consumed during their sickness two quarts of whisky and all recovered—without any apparent bad results. Of course it is difficult to judge in the treatment of disease as to whether the drug administered formed a curative power or whether our patient recovered in spite of it, but it seems as evident to my mind as anything in medicine that alcohol in the treatment of diphtheria does the patient no harm but a great deal of good.

There is another point in your editorial which I wish to notice, and that is in regard to 20 per cent. of mortality in treatment of diphtheria as being a high ratio of deaths. But when it is known that the so-called pseudo-membranous croup and cases that neglected to call me in at the incipiency of the disease are all included in this death rate, the ratio is not so high. I have noticed that when I have been called in to treat a case of diphtheria at the incipiency of the disease my success has been remarkably good.

Yours respectfully, J. M. BATTEN.

NEW YORK LETTER.

NEW YORK, Feb. 14, 1885.

The recent meeting of the State Medical Society at Albany was noteworthy on account of the almost complete absence of National Code men from its sessions. The principal matter of interest occurring at it was the discussion of a proposed State Board of Medical Examiners for the purpose of granting licences to practice (this power being taken from the colleges), and the recommendation of a bill providing for the organization of such a board, to be introduced into the Legislature.

The bill thus agreed upon fixes the number of examiners at nine, who are to be appointed by the regents of the University of the State of New York, as follows: Six from the members of the State Medical Society (of whom three are to be elected from those not connected with incorporated medical colleges, and three from those who are members of the faculties of such colleges), and the remaining three from the other two incorporated medical societies of the State in proportion to their representation, viz.: two from the Homœopathic, and one from the Eclectic State Society. They are to be appointed annually, but are eligible for reappointment. The pay of the examiners is to be $800, and the following subjects are to be included in the examination: Anatomy, histology, physiology, hygiene, chemistry, pathology, principles and practice of medicine, surgery, midwifery and therapeutics. The following is the method of examination prescribed:

"All such examinations shall be conducted in writing or orally, at the option of the board, * * * * provided that each applicant, upon receiving from the said regents an order for examination, shall also receive a confidential number, or mark, which he or she shall place upon his or her examination papers in lieu of signature, so that when said papers are passed upon by the examiner the latter shall not know by what applicant said papers were prepared, that, upon each day of examination, all candidates shall be given the same set or sets of questions, that the examinations upon the principles and practice of medicine shall only be held after the other examinations have been made and their results recorded, that, upon these two subjects, three sets of questions, prepared by the representatives in said board of the Medical Society of the State of New York, the Homœopathic Medical Society of the State of New York and the Eclectic Medical Society of the State of New York, respectively, shall be given to each applicant, and the applicant shall elect which one of the said sets of questions he or she shall answer, and that the merit of these answers shall be exclusively passed upon by those members of the board by whom the questions were prepared ''

At the present time the bill has not as yet been presented to the Legislature, as the Committee on Legislation was instructed to first have it carefully revised throughout under competent legal advice

In the meanwhile, another bill (similar to the one discussed last year) providing for a State Board of Examiners on which the regular profession, the homœopathists and the eclectics are equally represented, that was introduced first upon the meeting of the State Medical Society, has received one reading in the Assembly There seems to be little likelihood, however, of either bill passing, as the whole body of the regular profession, both old and new code, is opposed to the latter on account of its giving an equal representation with itself to each branch of irregulars, and the homœopathists and eclectics are opposed to the first because it allows them such a small representation Notwithstanding the fact that this bill received the unanimous endorsement of the State Society, a large portion of the regular profession are urgently opposed to the formation of any Board of Examiners which has any representation whatever from the irregulars upon it It would certainly be a strange spectacle to see the representatives of the New York County Medical Society, to which all the New York members of the State Society belong, sitting on the same board with one or more representatives of the Eclectic College, which for a considerable number of years it has been endeavoring to permanently deprive of its charter—in which laudable undertaking it has already expended many hundreds of dollars, and is still more or less actively engaged

Some of the druggists in this city are now on the anxious bench, as an investigation into the purity of their wares has been commenced under the direction of Dr Cyrus Edson, of the health department, and forty samples of quinine, purchased from different shops through individuals who were not suspected of doing it for this purpose, are at present undergoing analysis One arrest has already been made, and more are likely to follow The druggist arrested was charged at the police court with violating section 16 of the Sanitary Code, by selling to an officer attached to the second division of the Sanitary Bureau ten powders of alleged sulphate of quinine, of ten grains each, which were adulterated with a large quantity of milk sugar He was admitted to bail, and the trial has not yet come off

The value of taking advantage of special opportunities as they may arise from time to time in life, is strikingly illustrated in the professional career of the late Dr James Owens Smith, who died January 30 At the time that he was graduated from the College of Physicians and Surgeons, in 1825, the Republic of Columbia, then recently established under the presidency of Simon Bolivar, had just purchased in the United States a frigate which was about to sail for Venezuela, and for which a surgeon was needed On account of the high character of his recommendations, Dr Smith secured the appointment, although there were a large number of other applicants for the position, and the frigate sailed at once to Caracas where, as it so happened, there was a violent epidemic of yellow fever Some of the local physicians having died and others deserted their post of duty there was an instant demand from the inhabitants for the services of the ship's surgeon, and he entered upon the work before him with determination and energy Having brought the disease under control by the enforcement of sanitary measures, he was sent for by the inhabitants of a neighboring city where the fever was raging, and here also his labors were crowned with success Sir Robert Ker Porter, the British Consul at Caracas, now appointed him his physician, and took him into his household, and for five years he had an extensive practice in Venezuela He then returned to New York and, curiously enough, shortly after his arrival, in 1832, the first epidemic of cholera occurred in that city His former experience in the yellow fever outbreaks now stood him in good stead, and so highly were his services appreciated, that he at once obtained a large practice, which he retained for forty years, when he retired from active work

Gaillard's Medical Journal is to be maintained, and the future editor is to be Dr P Brynberg Porter, who will have for his collaborators Drs T Gaillard Thomas, and George T Harrison, of New York, Hunter McGuire, of Richmond, Va , and S M Martin, of Mobile, Ala P B P

NECROLOGY

IN MEMORIAM

James Gray Thomas, M D , was born near Bloomfield, Kentucky, June 24th, 1835

He began his medical studies in Louisville, Kentucky, in the school in which the late Samuel D Gross, M D , LL D , then taught

He graduated in medicine from the University the City of New York in 1856, and began his work in Bloomfield, the place of his birth and early home He subsequently settled near Sardis, Mississippi, where he was in general practice when the late war broke out He entered the Confederate service as a surgeon and continued in that capacity till the war closed

He married in Savannah November 16th, 1865, and made that city the place of his residence

He served in the Legislature of Georgia through the sessions of 1875 and 1876 This apparent divergence from the line of his chosen vocation, was made by him in obedience to a sense of public duty and in compliance with the urgent solicitation of eminent citizens who desired to return to the Legislature a judicious and public-spirited medical man, who would lead in procuring the enactment of laws relating to the interests of hygiene in the State In accepting such public trusts he was especially moved by the hope that he might help to obtain for the State an effective Health Board During the session of 1875, the first of his service, the Legislature passed "an act to create a State Board of Health for the protection of life and health, and to prevent the spread of disease in the State of Georgia, and for other purposes" He took a most important part in the preparation and passage of this measure The Board thus created, consisted of nine physicians, together with the Comptroller General and Attorney-General and State Geologist, and it chose Dr Thomas as its first President, his name appearing as such in its printed reports for the years 1875 and 1876 He was diligent in his attention to the work of the Board and endeavored faithfully to make its ministrations effective for the good of the commonwealth For the first time in the history of the State "physicians were recognized as an active and working element in its government" Systematic efforts were made throughout the State to increase the number of those who would favor sanitary reform, to establishing a correct method of obtaining and using vital statistics, to organize local boards of health, to define the powers of such boards, and to defend the people on the coast-line and over avenues of traffic with the interior, against the incursions of pestilence from abroad, and to teach them to recognize and fight against preventable diseases within their own borders A due supervision of all the public charities of the State was also to be provided for In fact, a great movement was started which was intended to secure for the State the inestimable blessing of a good body of health-laws, wisely administered In all this admirable work Dr Thomas was justly prominent, and, had he and his associates been sufficiently sustained by legislative grants and appreciative public opinion, greater results would have been immediately realized

The good he did in turning away somewhat from the cherished and most congenial occupation of private practice to serve in public life, will link his name as that of a benefactor with the sanitary history of his State and with the annals of State medicine throughout our entire land

In 1877 "an act was passed by his State Legislature to provide for the drainage of Chatham county, so as to protect the State from epidemics of yellow fever and other diseases, and to appropriate for said purposes one-third of the State-tax of said county for the year 1877, and appointing five commissioners to carry the law into effect" On the organization of the Commissioners, March 7th, 1877, Dr Thomas was elected their chairman He took an active and zealous part in the work of the Commission, and was its chairman at the time of his death "The work done by this commission has been effective not only in promoting the public health and material prosperity of the chief commercial ocean gateway of the State, but also in contributing to arrest wholly any invasion of yellow fever since 1876"

"In the winter of 1881, Dr Thomas had strongly urged the importance of organizing in Savannah, a Citizen's Sanitary Association looking to the improvement of the public health through the united efforts of private citizens, and as auxiliary to established public methods of sanitation The result was a public meeting held in the 'Long Room' of the exchange, Dec 14th, 1881, largely attended by leading citizens of Savannah By special invitation the meeting was addressed by Dr Thomas His views were so warmly adopted that the organization of the proposed association was immediately authorized and carried into effect, Feb 10th, 1882 On this occasion he was elected President of the Association, which began with an enrollment of 259 members, subsequently largely increased Dr Thomas continued in this office to the time of his death"

Thus, while the Doctor was assiduous in the private practice of his calling, and never neglectful of its solemn obligations, he was always concerned about the welfare of the public and ready in suggesting judicious plans to enlist public-spirited citizens in measures for the general health He was rarely absent from his work, and only for brief periods of rest, when those for whose health he felt a deep sense of responsibility were least liable to be exposed to epidemic influences He was an esteemed member of the American Health Association, and no one who had the privilege of attending the session of that body in Savannah, will forget how much the success of the meeting turned on his unostentatious but effective services, and how freely and courteously the hospitalities of his delightful home were dispensed

His interest in the National Board of Health was early, consistent and continuous, and he did what he could to advocate the doctrine of the necessity of the establishment and maintenance of that body as the most ready, effective agency through which to give the entire country the benefit of adequate sanitary supervision and police, to lessen the ravages of indigenous, preventable diseases, and to prevent the introduction on the coast-line of such as threatened to invade the country from without

He was ever willing to do the work that pressed upon him to be done, and to turn aside even from the most congenial occupations of home life and the routine of his daily practice, if only the claim were addressed to his keen sense of public duty He was not only a physician, he was also a patriot It was in obedience to such motives that he left Savannah at the close of November last, although not feeling well to attend a meeting in the city of Washington to complete the arrangements for the International Medical Congress to be held in that city in the year 1887.

He was taken ill on the railway train near Richmond, but continued on to his destination. After reaching Washington his malady took the form of pneumonia. His good wife was sent for; his sympathetic medical brethren aided her in her affectionate and devoted ministrations. At one time the disease seemed to be checked, but the arrest was only simulated; he grew weaker, and on the morning of Saturday, December 6, 1884, he departed this life, following, as we have credible evidence, those who have endeavored to imitate the Good Physician.

Even this brief narrative of the life of an exalted member of the medical profession would be very incomplete if we did not record one or two more allusions to the quality of the work that he did day by day for the patients who leaned upon him for sympathy and treatment.

He was always on the alert to learn anything which might be for the advancement of his science and art. He was ready to seize a new idea, to develop and utilize it. He was studious and meditative in the line of his calling, notwithstanding the activity of his life, and succeeded in finding time to keep up with the advance in medical literature.

It is to be regretted that he did not write more. His paper on "Dengue," in the sixth volume of the Transactions of the American Public Health Association, is an admirable contribution to the discussion of that obscure and most distressing malady.

His opinions, oral or written, on the medical questions of the day, were always marked by freedom from passion, and by a plain intention to avoid, on the one hand, the bondage of prejudice, and on the other hasty deduction and restless change. While he was alive to every good impression and suggestion of progress, he was deliberate and judicial in committing himself to that which was new. His honesty and prudence were manifested in these and many other ways, and his patients and professional brethren trusted him implicitly, and were not disappointed.

His personal appearance was most attractive and commanding. Tall in stature, he was erect and vigorous in his carriage, impressing even casual observers with the fact that he was a man of more than ordinary force. He carried a good head above broad shoulders; his face was "benignant and serious," and on his manly features a light was radiant which came from a good heart. There was an indescribable quality in his presence and manners which won the confidence of all, but especially impressed and charmed his friends and companions.

It is a source of joy and inexpressible satisfaction that there are so many good and true men in the medical profession of the United States. The whole fraternity may well join in thankfulness that the career of Dr. Thomas among his colleagues, neighbors, and friends was blessed as it was to his family, his patients, and the State; that he attempted with so much modesty and unflinching purpose to realize in his daily work and in his public services so high an ideal, and that his last professional act, in the performance of which he gave his life, included the grand idea of the brotherhood of nations and the community of science and benevolence.

From those who knew him well, the source of the power in his life was not hidden; it sprung perpetually from an humble belief, not only in the supernatural, but in a personal, triune God, upon whose mercy he had cast himself and whose law he strove to know, to love, and to obey. C. R. AGNEW.

MISCELLANEOUS

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, UNITED STATES ARMY, FROM FEBRUARY 7, 1885, TO FEBRUARY 13, 1885.

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Wilson, Wm. J., Captain and Assistant Surgeon, ordered for duty as Post Surgeon, Fort Preble, Me. (S. O. 27, Dept. East, Feb. 5, 1885.)

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OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE, FOR THE WEEK ENDING FEBRUARY 7, 1885.

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Guiteras, John, Passed Assistant Surgeon. When relieved at Key West, Fla., to proceed to Charleston, S. C., and assume charge Feb. 11, 1885.

Kalloch, P. C., Assistant Surgeon. To report to Passed Assistant Surgeon Peckham at Wilmington, N. C., for examination for promotion Feb. 10, 1885.

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BY FRED HUMBERT, M D, F C S, ALTON, ILL

It is the duty of a physician who has lived and practiced in several epidemics of Asiatic cholera to give his impressions and experience So long are the intervals between the visits of this disease, that it cannot be studied clinically, and so a majority of present practitioners have never seen it But they must prepare to meet it, and very probably the coming year I have, as clearly as possible, given a pen-picture of it as it passed before me on several occasions, hoping it may be to young physicians, for whom it is written, of some value in time of need

When the cholera first appeared in Europe, in 1830, the physicians were at a loss how to treat it

They searched the reports of the English physicians in the East Indies, where the cholera had been since 1817 under observation, but found little information Having no better resources, they adopted their crude, heroic treatment But soon experience of their own, of a very painful nature, drove them from this The alarming mortality of the cholera in that year, as it traveled from Asia through European Russia and Poland toward the center of the continent, is not to be wondered at when we recall the remedies applied Venesections of a pound and a half at first, and later in smaller quantities, till blood refused to flow, mustard poultices over the bowels and legs, leeches to the abdomen, and behind the ears, burning on the bowels paper saturated with alcohol, or dropping on them melted sealing-wax, besides bathing patients in a warm solution of liquor caustic

Internally, twenty or thirty grains of calomel, in repeated doses, was administered until at times, in the then seldom made post-mortem examination, ounces were found in the intestines Opium (generally in the tincture) was so freely administered that the patient never rallied from the narcotism Mucilaginous drinks were freely given

After trying these remedies in vain, the European physicians resorted to astringents, stimulants and opium in small doses (2 to 5 drops of tincture) Sulphuric acid, a remedy long before freely used in diarrhœa, typhus and scarlatina to restore the chemically changed blood to its normal state, was resorted to here also Tinctures of cardamon, catechu, capsicum, cantharides and camphor, chloroform, emetics and escharotics, calomel and castor oil In collapse, hydrocyanic acid, brandy and-chalk mixture and turpentine were used Of all these remedies, the stimulant tinctures of camphor and cantharides are most valuable The patient was wrapped in blankets wrung out of warm or cold water

Hypodermic injections of opium have been resorted to for a long time

Lately, hypodermic injections of large quantities of water, from two to four ounces, have been experimented with

But before being justified in the use of such heroic treatment, we must ask, Where does the chemical separation of the blood take place?

Is it in the lungs or in the arteries, after the venous blood has passed, aerated or not aerated, through the lungs, having left more and more the solid parts in the arteries?

Or does this separation begin contemporaneously in the whole circulation? It is found in post-mortem section of cholera bodies as a dark, syrup-like fluid without fibrin, having in the veins and arteries dark-brown lumps Gradually, as the separation increases, the fluid necessary to life is destroyed

Can hypodermic injections into the areolar tissue, or infusion with a tap into the peritoneum of water or medicated water, be used in sufficient quantities to replace and correct the first or greater discharges of rice water by the bowels, not to speak of that which is vomited? Can it restore the already separated fluid? The course of the cholera is rapid There is no time for these injected remedies to be absorbed, even if, as has been well said, it were possible to keep the cramping, restless patient quiet long enough to administer them Will it not follow in the same rapid course towards the intestines? But can it be prosecuted in an epidemic in which the practitioner is called every half-hour by day, and oftener at night, to other patients? Can such operations be left to the nurse or family in a time when the morale of the community is out of joint, help rare, friend forsaking friend, husband wife, and parents their children? Often the nurse has yielded to the temptation of the plentiful stimulants

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There are floating in the present medical literature, since the cholera is reasonably expected to visit our continent from Europe next year, many theories etiological and some therapeutical which may be read and studied in the room of the student, but are of no practical value to the young practitioner He has to face this curse of the human family, and needs weapons

It may not be out of place for the writer to give the practical results of his observation and experience during four epidemics of cholera, in two of which he spent nearly all his bodily strength in attendance on patients day and night

From the researches of Hayem, of Paris, in microscopical examinations of the blood of cholera patients to Koch's last results in which he found that the specific poison is a kind of spirillium rather than a bacillus, limited to the mucous skin of the intestines and is not found in the mesenteric glands nor in the blood It is only the result not the cause of the disease Where, then, is the separation or chemical separation of the serum from the solids of the blood? Is it in the mucous membrane of the intestines or in all the capillary vessels of the system? Does this separation begin gradually in the minute vessels and more and more as it reaches the larger vessels leave the solids of the blood and permit only the serum to pass on to the intestinal canal to be accumulated until expelled? It is thus the channel of drainage for the system in normal life when the fountain of the kidneys is stopped How, then, can this spirillium, found only in the mucous skin of the intestine, destroy life? We have not gained any facts from these chemical and microscopical researches to aid us toward a rational treatment of Asiatic cholera We have learned practically to prevent and lessen its malignity by the researches of the sanitary branch of the political economists, as seen in the epidemic of 1874 in Europe

We know now that by the decomposition of animal and vegetable matter in the soil around houses, cesspools, manure heaps, stagnant ditches and sewer-openings, under proper atmospheric and telluric conditions, the fermentation of the fungus of cholera-poison is bred and transported In localities where proper sanitary improvements are instituted, this disease has lost its malignity, and by further general and systematic sanitary provision, the sting of this scourge may be removed [1]

An epidemic of cholera is fearful in its mortality from its commencement to its acme, and its departure, as statistics prove, is almost always gradual The laity, and even some physicians, concluded from this that the profession, if not responsible, are incompetent or helpless in this disease This is a most unjust charge against a profession which, regardless of self-preservation, is devoted entirely to assisting the helpless victims of this malady, without regard to social distinction We readily see the injustice of this accusation, when we remember that not every cholera case comes under the care of the physician, and many who do come only in a collapsed or moribund state

Often they have been supplied from the drug-store, which early, before a cholera case occurred, in anticipation of a money harvest, advertised by the press and over the counter their nostrums as unfailing remedies These are not held responsible for the dead, due directly or indirectly to their prevention of the attendance of a qualified physician

Our profession should be careful in publishing a treatment as successful, before being proved so by the recovery of a majority of the cases under its influence in the epidemic then raging How unwise to rush into print and claim a specific after the treatment of two or three cases It is only after a fair trial that a remedy can be entitled to the confidence of the profession We should not forget the truism—"different people have different resistance"

The vital force in our organizations is more or less developed, and, as every physician knows, plays an important part in the good result of remedies Frequently a physically frail-built patient, struggling under a dangerous malady, comes up from the brink of the grave, while another, well developed and robust, with the same malady and under similar treatment and surroundings, succumbs The latter had not the tenacious hold on vitality of the former

I have seen in cholera epidemics and at other times many unexpected recoveries After setting aside my remedies, continuing only the careful feeding to sustain life, and with little hope, I have seen the vacillating, flickering flame rally Success in these cases may add nothing to the physician's prestige, but they establish the fact that some patients *will not die*

In the fifty years just past, when Europe has been threatened by a visitation of Asiatic cholera, the question of its contagiousness has repeated itself This prevents the early and proper regulations by sanitary efforts for its prevention and control State authorities lean toward the non-contagious theory, for quarantine paralyzes commercial traffic and money is lost Now, setting aside hairsplitting theories, we dare not dispute that the disease is transportable Another fact which prevents timely prevention, is that the first case is almost always declared by the attending physician and local authorities to be cholera-morbus, or at least it is denied to be Asiatic cholera It is known that epidemics of all kinds vary their symptoms more or less from time to time The main symptoms always remain, as red is always red, whether the color be a shade lighter or darker

Symptoms —The premonitory symptoms of Asiatic cholera are few, well marked, and more easily detected than those of measles, scarlatina, varioloid, variola, typhoid or typhus fever They exist but a short time till the disease is perfectly developed They begin with oppression in the temporal region, ringing in the ears with difficulty of hearing, a dull expression of the eyes, shivering sensations, oppression in the region of the heart and stomach and nausea After these symptoms have lasted an indefinite time, more or less marked according to temperament and intensity of the poison, a rumbling, like

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[1] 'Mr David Richard in his late experiments on pigs comes to the conclusion that the alvine discharges at certain stages of cholera contain a powerful poison whose chief function is to enfeeble and destroy the function of respiration—that the rapidity of its action excludes it from being an organism He thinks it a chemical compound probably an albuminoid He thinks the evacuations easily disinfected, probably by permanganate of potash

'Although the poison decomposes, it might by desiccation retain its power for some considerable time in clothes etc stained with choleraic discharges —*Indian Medical Gazette*, April 1884

in

water rolling along the transverse colon, with or without pain in the gastric region, with oppression in the chest and a slight dyspnœa, sets in These symptoms are greatly relieved by the first large watery motion mixed with the contents of the bowels This relief is so great for a time, many are deceived, and defer calling medical aid till too late From this time or earlier there is suppression of the secretion of the kidneys, and no urine will be discharged till recovery begins The next symptom is a large, turbid, thin evacuation, called the rice-water discharge In the height of the disease the discharges are as clear as well-water There is no sign of bile in any of the evacuations after the first It is retained in the gall-bladder and the ductus hepaticus No absorption of it seems to have taken place Nearly all absorption has apparently ceased I was called to see a farmer a mile and a half from town The hired man was lying dead on the porch, while the farmer and his wife were in bed, in agony with cholera Only one neighbor was present to assist The wife was 28 and the husband 40 years of age The disease had not so far advanced with the wife as the husband While I administered medicine to the husband, I observed the wife go to the night vessel, by the help of the neighbor This she did twice Shortly after, as I sat by the bed attending to her, I looked into that porcelain vessel nearly full which she had just evacuated, and dropping a pin into it, could see it distinctly at the bottom The primary symptoms before the rice water discharges set in, last from one to twenty-four hours During this time medical aid is most successful Under the present stimulant-narcotic treatment, this is the only time when a cure can be reasonably expected

Vomiting begins either with or before the first rice-water discharge The first vomit consists of the mixed contents of the stomach, the next has in it some mucus, but both are free from bile These are followed by clear fluid with the drinks swallowed The oppression in the stomach and dyspnœa increase Pain in the bowels, cramps in the arms and legs, restlessness, shrieks from the patient now begin or increase with copious vomiting and purging The skin becomes dry and cold, the eyes red with a blue ring around them, and the pulse diminishes After this has continued from one to six hours, sometimes longer, the vomiting and purging decrease in quantity and frequency This is most distressing to witness The patient is in painful agony and oppression He springs up in bed only to fall back exhausted, repeating it again and again while the watery stools pass under him He is tormented with thirst while he continues to call in a hoarse whisper for water Such torment and suffering are seen in really no other disease

Now the face takes on a blue leaden hue The cramps of the extremities are not so severe The skin becomes ice cold and covered with clammy sweat The skin of the hands, forearms, feet, and legs is cold and of a dark blue color and wrinkled by shrinking, looking like hands after a whole day's washing This is the height of the stage of true collapse

He is indifferent to all his surroundings, even to his own family I have never seen a patient after the rice-water discharges appear make his will He dies in this condition perfectly conscious, but sometimes falls into coma and passes away Sometimes after remaining twenty or twenty-four hours in this state the pulse fills again, the breathing becomes normal but feeble, the hands fill up, the temperature increases, the circulation returns, the whole body gets warm, the red hue of the skin appears, and in two or three days you see the patient out of bed without any lesion to trouble afterwards In this state of coma many are buried by the panic stricken people who are not dead Let me give a case in proof A patient in the beginning of collapse was buried against my urgent advice I was called at 8 oclock A M, to a young mulatto, 17 years of age, who, with her husband, were servants in a merchant's family Both had cholera and died I found her in the beginning of collapse, having had the second evacuation At noon I passed a coffin one fourth of a mile from the house and was told the negro woman was dead I drove directly to the house and entered the room where the woman lay The entirely nude body was covered with a sheet It lay like a marble statue, face chest, bowels, arms, and legs full, without any shrinking, the skin having the mellow yellow color so characteristic of a young mulatto It was of no avail that I urged delay in her burial, before 2 o'clock she was under the ground How many such burials take place among a panic stricken people[1] They are hard to prevent in this country where permits are only needed in the larger cities Do many physicians in the cities who grant certificates see the subject?

And now when we collect all the symptoms into one picture and add our own experience to form a diagnosis we come to the conclusion that we have here a shock of the nervous system—prominently the sympathetic But when we try to explain how this chemical separation and discharge of fluid takes place only by the mucous membrane of the intestines we work in the metaphysician's region of the immaterial and unfathomable law of nature

Before we speak of treatment, a few words on prevention

Complete and daily disinfection of all water-closets, refuse barrels and sewers Immediate removal of all excremental matter after being disinfected with sulphate of iron or carbolic acid, and covered with pulverized animal charcoal or dry earth The rooms should be purified by the burning of crude sulphur, but in such small quantities that the diluted sulphuric acid will not excite coughing Exert a moral influence Abstain from beer, from large draughts of water, ice water, lemonade and ice cream In cholera epidemics the greatest mortality is on Mondays, from the free use of these things on the day preceding I have seen many young girls and others' in full health on Sunday morning, after spending the day in the use of these luxuries and dissipation, die with the cholera on Monday The diet should not be changed, unless it be to use fruit moderately Cabbage and green vegetables should be avoided Those used to liquor should use it moderately, and those who are abstainers abstain Brandy is only to be used as a medicine I have seen clergymen, during these epidemics, under the influence of liquor on the streets Keep from exposure to cold, wearing woolen next the feet and body Watch yourself and household for the first appearance of illness As a prophylactic and pleasant drink, use largely diluted sulphuric acid, sweetened if desired, and flavored with orange Let this be kept in public places and at home as a summer drink If attacked by cholera when from home, take an aromatic astringent drink, and call your physician

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[1] Previous to the year 1870 in the immediate vicinity of Bordeaux, France, several workmen in excavating in a churchyard, came upon a belt of ground apparently impregnated with some antiseptic material All the bodies in the belt to the number of about 200 were found to be almost as perfect as when buried, I found when visiting the crypt of the cathedral where shown One was found lying on its side, the legs drawn up nearly to a level with the abdomen while the arms were in such a position as to indicate that both these and the legs had been used in a desperate but futile effort to push out the side of the coffin, whilst the look of horror remaining on the face was simply indescribable In the other case the body was found lying on its face the arms extended above the head, as if attempting to push out the top of the coffin —*Lancet*, June 10, 1884

But one of the most important prophylactic measures, in town or city, would be for the board of health to appoint a committee of sanitary composed of philanthropic citizens Let them have authority to examine every house and report to the board every foul place This committee should also freely distribute printed instructions among the people

Treatment—The most important thing for the physician to consider when called to the bedside of of a patient with this short-lasting disease, is, How can I change the abnormal and rapid secretion of the mucous membrane of the intestines and rally the sinking patient? Such remedies as will in the commencement of the characteristic rice-water evacuations fulfill the indications and promise to reduce the mortality But a drug which, in this disease as in all others, will cure every case will never be found Drugs are used for two purposes in the treatment of cholera—to disinfect and for administration For the latter purpose the majority of physicians use the stimulant, narcotic and astringent remedies Only a small number *experiment* with other drugs Still, there are some who obstinately hold on to the old idea that calomel is a universal remedy for all ills They ignore the teaching of all post-mortem reports since 1817 as to its failure and positive harm

It is not true that if it does no good it will do no harm When introduced into a living organism, if dissolved, it must impoverish the little remaining blood, and if not dissolved, it accumulates in the stomach and intestines and acts as a foreign body[1] In this rapid disease, with its low vitality, such a condition hinders the feeble reaction and prevents the use of other remedies It requires a stretch of imagination to believe, as Dr Ayre says, that two grains of calomel placed on the tongue every five or ten minutes, and washed down with an effervescing draught, will do any good But calomel can be of service and do good when other drugs may do harm, when reaction from collapse appears Then, given in small doses every hour or two for a few times, it will help to restore the suspended mucous secretion

Opium, when given to control diarrhœa or nausea and vomiting, in large repeated doses, has proved injurious It paralyzes the vital force and increases mortality Laudanum in 5 to 10 drop doses hourly, is 60 to 120 drops in twelve hours After the first dose copious vomiting sets in, soon becoming less, while the pulse gets fuller, but remains small and weak The head is hot, the eye glassy, the coating on the tongue thicker, the sensorium dull, while the extremities remain ice cold Stupor and diarrhœa increase, and life ends in coma But coma should not be the finale of cholera The mind remains nearly always unimpaired where no narcotic is given But in the premonitory symptoms opium can be judiciously used, and also as a narcotic and stimulant on the first indication of collapse Still, opium should not be long continued, for its cumulative effect is to produce stupor, ending in torpor and death Hypodermic injection of morphine is the same in its effect as opium, only more rapid and uncontrollable It lulls the pain, but the disease in the majority of cases in which it is given runs its course, like a smothered fire A correspondent in your journal says "morphia is the king of nervous remedies," and recommends it in cholera To this I strongly object For the last ten years I have seen it freely and often injudiciously used by our young practitioners Placing morphine on the bottom of the cork of a drachm vial of morphine and calling it a sixth of a grain, and in other careless measurements, then injecting, often brings the patient to the danger line, and in two cases under my observation beyond it No 1, a young woman 22 years of age, in which the morphine injection was given in the evening to relieve a headache, which of course it did The next morning her husband found her dead by his side No 2, a lady in the prime of life and perfect health, surrounded with comfort After a hearty breakfast she suffered from a slight pain in the stomach—indigestion I called, and gave ipecacuanha and two $^1/_6$-grain morphine powders, one of these to be given at 2 o'clock, and the other five hours after, if not relieved In the evening about 10 o'clock a fashionable doctor was called to a patient in the same house He offered to relieve her pain immediately, and administered a morphine injection The next morning I was called at 7, and found her dying Therefore I cannot indorse that morphine is king It is only uttering again the errors of the fathers of our art of fifty years ago They believed that calomel in fever and venisection in inflammatory diseases were king and queen of all ills And what misery I have seen follow these!

Dr F P McFarland gives the result of thirteen years' experience in India (Dublin *Jour of M S*), in which he says more cases have recovered under the salt treatment than under any other

There are two ways of using the salt The first mixture, which he considers the best, is Common salt, dr 2, bicarbonate soda, gr 36, chlorate potassi gr 10, and water, 8 ounces, to be taken every half hour or hour The second is half an ounce of common salt in a pint of water, every half hour or hour (*Jour A M A*, Vol 2, page 295, 1884)

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[1] Dr Joseph Heine military surgeon in the temporary hospitals of Papanz, Poland in 1831, made a section of the body of a soldier who had died of cholera after two days treatment with sulphate of zinc In the stomach he found several tablespoonfuls of a whitish grey fluid At the bottom of the stomach he was able to detach without tearing half of a white membrane the width of a hand It was a croupous membrane of from 1 to 1½ lines in thickness, and on it there were not missing the blood dots or islets

The permanganate is a poisonous disinfectant, claimed to destroy poisonous emanations It is recommended in diarrhœa, scarlatina, diphtheria etc, and lately in East India, in ¼ to ½-grain doses, in water, several times a day As before stated, this has been experimented with in a few cases, and I do not recommend it

Sulphuric acid is used only as a drink in the manner already described

Boracic acid is highly commended by W I Butler, of the Indian service, Madras He said, as the pure acid was not procurable, the biborate of soda was at first used, and 70 to 75 per cent recovered Afterward, when the pure acid was used, all recovered It was used in ten-grain doses, combined with biborate or bicarbonate of soda Salicylic acid in 10 grain doses, combined with 5 grains of bicarbonate of soda, and 5 grains of carbonate of ammonia, in an ounce of water, is recommended

Capsicum was early, and is still, used I have given it—capsicum, grains 3, bicarbonate soda, 20 grains, water, 4 ounces, give a tablespoon every half hour, or hour, as an auxiliary to other medicines, to allay vomiting

In the epidemic of 1866, Dr Spinzig, St Louis City Hospital physician, says, in report of treatment, August 27, when the disease was at its height, nine were given tincture cantharides, 5 to 20 drops every hour or two, none died September 12—Sixteen were so treated, twelve recovered and four died October 10, when the disease was on the decline, twenty two were treated and nineteen recovered This tincture was used in Europe in 1831, in very small doses, without any good result

Liebig soup was extolled by some physicians as a cure Collodion treatment An external application of collodion, 6 drachms, castor oil, 1 drachm, M, and smear the abdomen, covering with cotton-wool A French physician used and recommended this as a cure for diarrhœa and light cholera I mention it as a curiosity (*L'Union Medicale*)

Castor oil is very warmly commended by some English physicians It is used in moderate doses when the power of elimination is active Seldom more than two or three doses are said to be necessary It is said to be very efficacious in diarrhœa, before the cholera symptoms appear

Tartar emetic and ipecacuanha are reported as successful in many cases But how many of the recoveries, after using these last named remedies, are the result of, and due to, the *vis medicatrix naturæ?* Drenching the bowels with water by the mouth is reported as successful, and as an improvement, using the hypodermic syringe to inject medicated water into the subcutaneous areolar tissue But to more quickly reach the center of the supposed cause of cholera, infiltration, by means of an aspirator, of the peritoneal cavity with artificial serum has not been tried An effort is made to replace the rapidly wasted fluids This I only allude to here as a novel therapeutic addition to the literature or the art and science of medicine

Camphor and chloroform, which are used separately by many physicians as favorite remedies, I have referred to last, because *combined* they have proved valuable remedies to me, not only in Asiatic cholera, but also in many other diseases where a sedative stimulant, and may I say also astringent remedy, were indicated I have received more satisfaction in a long practice from its use than any medicine of its class I present it with much confidence, not claiming it as an arcanum

Knowing how unsatisfactory was the treatment in Europe during the epidemic of 1831, I tried in 1848 to procure the best information possible in this Mississippi valley In the course of my research I found in the January number of 1848 (when the Asiatic cholera appeared to an alarming extent and of a malignant type in Europe) of the *American Journal of Medical Science*, vol 1, page 170, the following article "Champhor and chloroform mixture by F and H Smith, M J, and Retrospect of M S, Nov, 1848 There is great difficulty or rather an utter impossibility of administering camphor in a state of solution in doses of sufficient potency in some cases The form of pills, the only mode of giving large doses of the medicine is objectionable in many cases and in others altogether inadmissible The camphor, being merely in a state of mechanical division, on being set free in the stomach, from its extreme lightness quietly separates and floats about, thus producing in many cases *much local irritation* in that organ, instead of soothing or arousing the general system

"Messrs F & H Smith, chemists of Edinburgh, give a formula for exhibiting camphor in doses of almost any amount of strength—certainly as large as any case can require—and that in perfect solution, thereby allowing of a nice adaptation of the dose to the circumstances of each case The formula is as follows Three drachms of solid camphor are dissolved in a fluid drachm of chloroform This is, perhaps, one of the most remarkable cases of solution the whole range of chemistry presents to us The solution is most rapid and complete and the bulk of the liquid is now increased from one to fully four liquid drachms This solution rubbed up with the yelk of one fresh egg may be formed into an extremely elegant emulsion by the addition of water without the slightest separation of camphor or chloroform, in fact no separation of any kind takes place If to the proportions given above as much water be added as to make a four-ounce mixture, each teaspoonful of the mixture when formed will contain about five and a half grains of camphor and about two minims of chloroform This mixture can be administered in any ordinary vehicle, such as water, without any separation, indeed the mixture is readily and completely effected, as cream with tea or coffee"

This struck me favorably on account of the perfect chemical solution of the camphor in chloroform, a pleasant stimulant and a gentle astringent of two sedatives of great volatilization I had found that for which I searched to replace the strong astringents, tannin, gallic-acid, ammonium, pepper, brandy, alcohol, and that powerful one, lead

When cholera reached us in 1849, I administered this camphor mixture in the premonitory stage in all cases and in the beginning of collapse It relieved the oppression in the gastric region, the flatulence, nausea, vomiting and diarrhœa I prescribed every hour a teaspoonful with two drops of laudanum so long as the premonitory symptoms lasted, and afterward, if no collapse, I gave it every two hours with one drop of laudanum, for a short time If collapse set in I gave the mixture every hour without the laudanum, but added instead every half hour or hour a teaspoonful of the following

℞	Capsicum powder	gr iii
	Bicarbonate of soda	ʒii
	Water ,	℥iv

But if this failed I used instead of it, tinc cantharides, 10 drops every half hour In making the mixture of camphor I used 2 drachms of chloroform instead of 1, I never united the laudanum with the mixture, but dropped it into the teaspoonful of the mixture, so that it could be used without the laudanum when needed

During the past thirty-five years I have used this mixture without laudanum in almost all cases of diarrhœa—except feculent—in which I give it after the action of an aperient I use it in small doses with other medicines in diarrhœa of children, and use it in all diseases where camphor is indicated Of all the mixtures in which no alcohol is used it remains most free from ferment, does not separate and lasts for years if kept from frost

But we cannot depend upon drugs alone for success Drink, food and external appliations play a very important part in the treatment if judiciously used Especially is this true regarding the temperature and quality of the water used as drink

It always seemed strange to me that ice should be recommended—pieces in the mouth and ice water to drink and alternating hot medicines with pieces of ice in Asiatic cholera

Cold water cannot produce reaction, invigoration or warmth to the parts to which it is applied, when the heat is under the normal and the vitality at the lowest ebb, as in cholera Ice satisfies thirst only for a very short time At first it creates a burning sensation, pleasant to the drinker, but when it is melted the burning sensation is gone and the desire for more is craving Cold or ice water can only be used when the temperature of the body is above the normal and the vitality must not be below its normal stage It is contra-indicated when chilliness prevails When ice water is introduced into the torpid stomach, it must destroy that small spark of vitality left About the same is true of warm water It never produces a sensation of warmth, but diminishes it and relaxes where the heat is under the natural standard Instead of being a stimulant it is a nauseant I have long held that warm water encourages vomiting, while hot water allays and stops it Hot water is a decided stimulant, increasing the circulation, as seen in gynæcology a remarkable astringent I use it and recommend its use in Asiatic cholera At first I give it freely between the medicines, in doses of a teaspoonful or dessert spoonful of clear hot water, free from any smell, so as *not to be offensive* As the sickness advances I give it in tablespoonful doses It is a decided sedative to the stomach, acting far more rapidly than narcotics At first the patient may refuse it and desire cold or ice water, but soon he realizes the good effect of the hot water and asks for it In the collapse I give between the medicines, every half hour, a teaspoonful of the yelk of a fresh egg with milk Leibig or beef soup in four ounces, of which I mix the yolk of a fresh egg and some brandy and hot water, and egg-nog I also use When reaction sets in I increase the quantity Now I also administer, every two hours, two grains of calomel combined with bicarbonate of soda Warm baths can hardly be used in private practice The undressing and dressing of the patient, heating the water in such quantities, procuring a bath-tub, and lifting the patient in and out with so little help make this a very difficult proceedure

I always order calico wrung out of hot water to be wrapped around the extremities and covered over the bowels, and this repeated often, that they keep hot Bottles filled with hot water placed around the body and between the limbs are a good appliance When none of these can be had, I have learned from the old ladies that boiled ears of corn wrapped in domestic are as good and retain heat longer than the bottles In all this treatment the patient must lie in a horizontal position and keep as quiet as possible, speaking only encouraging words Cholera seldom leaves any lesion, but sometimes the patient goes into a secondary fever Still, this is so rare that the treatment is best left to the judgment of the attending physician As the judge said in his final charge to the jury "If you think this, you must do that, but if you think that, you must do this" There is one fact to be mentioned of some importance A month or six weeks after the cholera disappeared, our section of the country was nearly free from febrile diseases After that, bilious intermittents appeared, when, if as usual a cathartic was given, it would produce a copious watery evacuation with bile This prostrated the patient In about twelve to twenty hours another of the same character would be dejected, typhoid symptoms would set in, ending in coma and death, generally in four days I have seen in the same season several puerperal fever cases, which ran a similar course It seemed as though a type of cholera still remained

November 4th, 1884

METHODS OF TREATMENT OF RESISTANT CLUB FOOT

BY E H BRADFORD, M D, BOSTON, MASS

Read in the Section of Surgery and Anatomy of American Medical Association May, 1884

Certain cases of neglected club foot are occasionally met of such an obstinate character as to resist ordinary treatment by tenotomy and mechanical appliances or to demand constant attention for a long time before a satisfactory result is gained This has given rise to bolder operative interference than has before been thought justifiable The following tables contain all the cases of tarsotomy which the writer has been able to collect

TABLE OF OPERATIONS ON THE TARSUS FOR THE RELIEF OF RESISTANT CLUB FOOT —REMOVAL OF THE CUBOID BONE

NO OF CASE	OPERATOR	PATIENT S AGE	DEFORMITY	RESULT AFTER OPERATION	ULTIMATE RESULT	REFERENCE
1	Solly	20	Double	Recovery	Some improvement.	Lancet. 1857 I p 478, also Adams Club Foot
2	Davy	15	Double	Recovery	Good	Brit Med 1876 I p 256
3	Davy	9	Double	Recovery	Good	Brit Med 1876 I p 256
4	Davy	14	Single	Recovery	Fair	Brit Med 1876 I p 256
5	Stephen Smith	Adult	Single	Recovery	Poor Subsequent amputation	New York Med Record 1879 V xv No 21 p 491
6	Poinsot	12	Single	Recovery	Good	Bulletin et Memorie Soc Chirurgie VI 1880 p 455

CASES OF REMOVAL OF THE ASTRAGALUS AND TIBIOTARSAL RESECTION

NO OF CASE	OPERATOR	PATIENT S AGE	DEFORMITY	RESULT AFTER OPERATION	ULTIMATE RESULT	REFERENCE
1	Ried	43	Single	Recovery	Good	Deutshe Zeitsch f Chir 1880 XIII 114
2	Ried	44	Single	Recovery	Good	Deutshe Zeitsch f Chir 1880 XIII 114
3	Ried	4	Single	Recovery	Good	Deutshe Zeitsch f Chir 1880 XIII 114
4	Ried	14	Single	Recovery	Fair	Deutshe Zeitsch f Chir 1880 XIII 114
5 } 6 }	Volkmann ..	Not given	Single	Recovery	Good	Centr f Chir 1880 No 13 p 197
7	Lund	7	Double	Recovery	Good	Lancet 1878 I 389
8	Lund	29	Single	Recovery	Not good	V Arch Gende Med 1882 I p 466
9	Verbelzi..	5	Single	Recovery	Good	Central f Chir No 24 1877
10	Mason	20	Double	Recovery	Amputation Death	N Y Med Rec July 14, 1877 p 446
11	Lesser	6½	Single	Recovery	Good	Centralbl f Chir 1879 No 31 497
12	Boeckel	?	?	Recovery	Good	Gaz Med de Strasbourg 1883 Nos 6 and 7

RESECTION OF TARSUS

NO OF CASE	OPERATOR	AGE OF PATIENT	DEFORMITY	RESULT OF OPERATION	ULTIMATE RESULT	REFERENCE
1	Weber	15	Single ..	Death		Archives Gen de Medicine 1882 I p 583
2	Davies Colley	12	Double ..	Recovery	Good	Brit Med J 1876 II 526
3	Howse	?	?	Recovery	Good	Archives Gen de Med 1882 I p 584
4	Wood	?	Double	Recovery	Good	Lancet 1878 I ? p 800
5	Davy	6	Single	Recovery	?	Lancet. 1878 I 389
6	Davy	12	Single	Recovery	?	Lancet 1878 I 389
7	Davy	16 months..	Single	Recovery	Good	Lancet 1878 I 389
8	Davy	?	Single	Death Septicœmia Antiseptics not used		
9	Mensel	9 years	Double	Recovery	Good after a second operation	Lancet 1878 I 389
10	Schede	?	?	Recovery	Good after a second operation	Centralbl f Chir IV 1877 and VI 1879
11		?	?	Recovery		Centralbl f Chirurgie VI 1879
12		?	?	Recovery		Centralbl f Chirurgie VI 1879
13	Hueter	Adult	Single .	Recovery	Good	Klinik der Gelenkkrankheit 2d part p 145 Note
14	Ried	5	Single	Recovery	Good	Archives Gen de Med 1882 p 586
15	West	23	Single	Recovery	Good	Brit Med 1878 II 280
16	Barwell	21	Single.	Recovery	Good	Med Times 1878 II Dec 28
17	Bryant	12	Single	Recovery	Good	Lancet 1878 II 772
18	Muralt	7	Single	Recovery	Good	Centralblatt f Chir 1879 VI p 896
19	Rupprecht	4½	Single	Recovery	Good	Centralblatt f Chir 1880 VII p 106
20	Rupprecht	9	Double	Recovery	Good	Centralblatt f Chir 1880 VII p 106
21	Rupprecht	4	Double	Recovery	Good	Centralblatt f Chir 1880 VII p 106
22	König	12	Double	Recovery	Good	Centralblatt f Chir 1880 VII p 193
23	König	13	Single	Death Ulcerative Endocarditis		Centralblatt f Chir 1880 VII p 193
24	König	19	Single	Recovery	Good	Centralblatt f Chir 1880 VII p 193
25	Mensel	10	Double	Recovery	Good	Centralblatt f Chir 1880 VII p 167
26	Leissl	27	Single	Recovery	Good	Wiener Med Presse 1881 No 2 357
27	Davy	4	Single	Recovery	Good	Br Med Journal 1881 II p 698
28	Davy	10	Single	Recovery	Good	Br Med Journal 1881 II p 698
29	Davy	10	Single	Recovery	Good	Br Med Journal 1881 II p 698
30	Davy	11	Single	Recovery	Good	Br Med Journal. 1881 II p 698
31	Davy mentions having performed 6 other operations with success				Good	Br Med Journal 1881 II p 1016
37	Bennett	47	Single	Recovery	Good	Br Med Journal 1881 II p 1016
38	Porter	?	?	Recovery	Good	Boston M & S Jour Sept 8 1881 p 241
39	Bradford	11	Single	Recovery	Good	Boston M & S Jour Sept 8 1881 p 241
40	Bradford	13	Double ..	Recovery	Good	Boston M & S Jour Sept 8 1881 p 241
41	Beauregard	15	Single	Recovery	Good	Bulletin de Soc de Chirurgie 1882 VIII p 766
42 } 48 }	Lucke } Wagner } 7 cases are reported treated by excision of the tarsus with success					
49 62	Rupprecht mentions 14 other patients besides those mentioned already, 23 operations in addition to the four mentioned with success					Inaugural Address Strasbourg 1881
65	Kraske mentions three successful cases					Centralblatt f Chirurgie 1882 No 31 Congress of German Surgeons 1882
66	Beauregard	9 years	Double	Recovery	Good	Bulletin de Soc de Chir, 1882 VIII p 766
67	Beauregard	15 years	Single	Recovery	Good	Ibid

The above table, compiled with additions from Chauvel's excellent article on the subject (*Archives Generales de Medecine*, 1882, p 456), shows that the danger as to life from these operative procedures is not great In 110 operations on 88 patients, 3 deaths are recorded One of these is not fairly attributable to the operation (case 23), as at the autopsy evidence of ulcerative endocarditis existing before the operation, was found The other deaths, from septicæmia and hospital gangrene, might possibly have been prevented if antiseptic precautions had been used (cases 8 and 1) It is, however, difficult to determine, accurately, as to the exact amount of correction of the deformity and ultimate benefit afforded by the operation, from the comparatively meager reports given in many cases Two of the patients subsequently underwent amputation, showing that the result was not satisfactory, but a large majority of the cases were permanently benefited In the writer's two cases (three operations) this was certainly the case, the patient having been heard from three years after operation The improvement in the position of the foot in the first case was not as great as in the second, owing to improvement in the technique In both, however, an ugly deformity was converted into one hardly noticeable, with perfectly useful feet, the patients, from walking on the dorsum of their feet, being made plantigrades

The methods introduced may be grouped as follows

1 Removal of the cuboid alone
2 Removal of the astragalus alone
3 Removal of the astragalus and cuboid and scaphoid
4 Section of the neck of the astragalus
5 Removal of the astragalus and the external malleolus
6 Osteotomy of the lower end of the tibia and fibula
7 Wedge shape resection of the tarsus

The results from the first method have not been altogether satisfactory, and the fourth may be said to be insufficient, and against the third and sixth it may be urged that too much mutilation of the foot is required

Authorities differ in advocacy of the second and seventh methods

Ried (*Deutsche Zeitsche f Chir*, 1880, v iii, 114) states his preference for the removal of the astragalus over a wedge shaped section of the tarsus, but admits that the matter is yet *sub judice*

Rupprecht (*Centralblatt f Chirurgie*, 31, 1882), speaking from experience in twenty-seven operations, is decidedly in favor of the former of these methods on clinical grounds, that in five of the nine cases of resection of the tarsus a tendency to inversion of the front of the foot remained, while after the eighteen excisions of the tarsus he performed this was not the case, and also because the astragalus, the bone whose distortion is chiefly instrumental in causing the deformity, is not thoroughly rectified by wedge-shaped section of the tarsus He admits, however, that in certain cases, especially in those above 13 years of age, extirpation of the astragalus alone is not sufficient, but that the scaphoid and several of the cuneiform bones must also be removed Sometimes a portion of the external condyle should also be removed In severe cases in the ages from 4 to 12 the removal of the astragalus alone is sufficient

An analysis of the cases collected by Chauvel, however, appears to show that the removal of the astragalus alone, or of the cuboid alone, does not give, as a rule, completely satisfactory results Tibiotarsal resection, *i e*, section of the tibia, and a portion of the astragalus, gives complete correction, but an anchylosis and a stiff ankle joint follows

Cuneiform resection of the tarsus is the most popular of these operative methods and has undoubtedly given remarkably good results, in certain cases, however, the ultimate benefit was not as great as was anticipated

Whichever of these operative procedures is adopted, it must be admitted that a mutilation of the foot is unavoidable, and the question naturally arises whether too great importance has not been placed by these surgeons upon the alteration in the facets of the astragulus and too little upon the connective tissue and ligaments which hold the deformed tarsus firmly in its distortion Granting that in certain adult cases tarsotomy may be required, it is certainly asking too much of the surgical world to believe that removal of the astragalus is advisable in a child of four years of age, for the clinical facts shown by the earlier teachers, and notably, Little, Adams, Brodhurst, and in this country by Buckminster Brown, give indisputable evidence that obstinate talipes equino varus is in a very large majority of cases amenable to treatment, and that the deformity is eminently a curable one by simpler means than tarsotomy Even if the astragalus is abnormal in shape and the articular facets are not on the proper surfaces, it has been abundantly demonstrated that if the tissues are sufficiently stretched or divided on the contracted side of the foot, the foot put in a normal position and kept so a sufficient length of time, a cure will follow The chief difficulty has been in obstinate cases to stretch the contracted tissue on the concave side of the distortion In the three operations for cuneiform resection of the tarsus which the writer performed, it was apparent that unless an enormous wedge was removed from the outer and upper surface of the foot, stretching to a greater or less extent of the ligaments and connective tissue on the inner and plantar surface was necessary to bring the foot into an over corrected normal position The reports of the ultimate results of cases of tarsotomy or removal of the astragalus seem to confirm the opinion that these tissues are very important in producing club foot Acting on this belief, Dr Phelphs, of Chateaugay, has by a direct open incision on the inner and plantar surface corrected a severe case, and to forcibly stretch these tissues without division, Dr Thomas Morton, of Philadelphia (Surgical Reports Pennsylvania Hospital), mentions the use of an appliance which he terms "the club-foot stretcher" This is of use, but has the defect of relying for stretching upon straps, which are necessarily liable to slip and give In order to avoid this and to give greater precision, an instrument has been devised by which the rectification is effected by means of screw pressure directly applied, as is the case in the osteoclast

The apparatus consists—

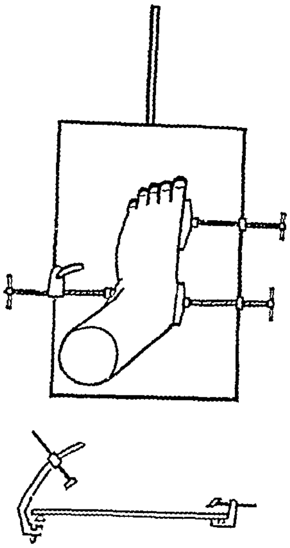

FIG 1 Cross section

(1) Of a plate large enough for any foot

(2) Of three steel buffers or padded plates which are attached at the ends to steel screw rods, playing through sockets with a female screw thread at the sides of the large plate By turning the screws, which is done by the handles, the plates or buffers are pushed forward They should be placed so as to press (1) upon the side of the first metatarsal, (2) on the side of the os calcis just beneath the inner malleolus, (3) on the outer side of the foot over the projecting head of the astragalus The female screw, through which the male screw plays, is adjustable upon an arm curved so that pressure can be applied when it may be found necessary

The sockets and arms are arranged so that they can be shifted and placed at any point along the side of the large plate, or can be shifted from side to side, so that the appliance can be used for either foot

(3) A straight rod, extended in the plane of the plate, gives increased power in raising the front of the foot This is not always needed, and can be removed

The method of operation is as follows Tenotomy is performed, and the foot rectified as far as is possible by the hand, the foot is then placed in such a position upon the plate that screw force can be applied as desired At times it will be found that fibrous tissues will be felt to tear, but ordinarily the process is a slow one, and the tissues are stretched under a constant pressure, and yield slowly The skin on the concave side of the foot will be seen to become tense as if a tear was imminent, but in the writer's experience this has not occurred and, owing to the elasticity of the skin, is hardly a probable danger The leg is to be steadied by an assistant, and the operator, turning the screws in the desired corrective, first attempts to change the varus into a valgus position without any attempt to correct the equinus deformity If the foot curls at the toes under the pressure on the side of the metatarsus, an assistant should press down upon the head of the metatarsal It will be found that the foot is firmly held to the plate when pressure is thoroughly applied, if then the plate is twisted out or up, the foot can be strained in the desired direction, the twist of the foot and the equinus position corrected In the majority of the cases upon which I have operated in this way, the foot could be brought into an over corrected position after stretching (in some cases for some minutes) A certain amount is lost in fixing the foot after the operation The fixation of the foot after operation is the most important step of all, as the ultimate success depends largely upon the position in which the foot is placed Doubtless other, and perhaps better, methods may be devised, but I have been accustomed to use a plaster bandage carefully applied over the foot, this being held by the hands in a forcibly corrected position, the bandage reaching from the toes to above the knee, the limb being slightly flexed at the knee to prevent rotation of the plaster and subsequent inversion of the foot The patient should be brought to the end of the table, an assistant should steady the knee, the foot should be grasped at the toes and ball of the foot (the fingers being on the planters and the thumb on the dorsal surface), by one hand pushing forcibly in the desired direction, counter pressure being exerted in the opposite direction by the other hand applied to the lower part of the leg The ordinary plaster roller bandage should be applied, avoiding the hands as they hold the foot, the latter exerting pressure until the plaster is sufficiently firm as not to yield when pressure is relaxed, subsequent turns of the plaster bandages can be applied to cover the gaps remaining after releasing the hold upon the foot A good deal of manual force is frequently required to hold the foot, and it is essential that the bandages should harden quickly, five minutes being ordinarily sufficient for this It is advisable to cut the bandage before it becomes thoroughly hard along the dorsum of the foot, cutting through the thickness of the plaster an oblong piece from the toes to the lower part of the leg, and nearly the width of the foot, so that if it is desirable to inspect the foot at any time, it may be done without destroying the bandage

If cut at the proper time, while the bandage is still firm enough to hold the foot, but soft enough to cut, this lid of the plaster box can be loosened without breaking or destroying the bandage If the foot or leg is protected by a layer of cotton batting, applied next the skin before the plaster bandages are put on, there is little danger of incising the skin when cutting the hardened plaster

With care in avoiding wrinkles there is little serious trouble to be anticipated from sloughs, though if much strain is put upon the foot during the fixation, sloughs on the inner side of the ball of the great toe may appear after a few days If these are troublesome, the appliance figured in the accompanying cut can be used This consists of a steel rod, bent so as to project some inches to the outer side and above the foot and along the leg, incorporated in a plaster bandage enclosing the leg and knee A buckle should be put at the lower end of this rod, into which can be fastened a piece of webbing sewn at the other end to rubber adhesive plaster wound about the foot If this causes chafing, its position on the foot can be shifted, and portions of the skin can be protected by sheet cotton Should there be a tendency for the whole bandage to slip down, adhesive plaster applied to the thigh or leg, as in extension for hip disease, with the end buckled to a buckle incorporated in the plaster bandage, will prevent this

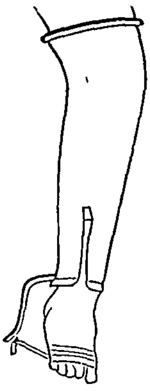

Fig 2

If it is desirable to apply a pull in other directions than that indicated in the accompanying cut, this can be done by fixing additional pieces of steel rod and applying straps to the foot in a similar way Slight œdema of the foot may occur from the absence of pressure on the foot This can be obviated by applying a cotton bandage to the foot Patients may be expected to suffer considerable pain on the first night of the application of the plaster bandage Ordinarily, this disappears in a day If one foot only is operated upon, the patient can go about immediately on crutches If both, locomotion is of course impossible

In all cases complete correction cannot be effected at one sitting, and a second or a third are sometimes necessary, though this is decidedly exceptional It is, however, important that complete correction should be brought about, that is that the whole of the sole (including the heel) should be flat on the floor when the patient stands with straight legs In most cases the foot, when released after being fixed three or four weeks in the plaster of-Paris bandage, will be found to be in the desired position if it has been properly held when the bandage is applied All that is then to be worn is an ordinary walking shoe Sometimes some constant tension is required for a few weeks This can be applied in any of the usual ways, the operation having accomplished in a few moments the stretching which otherwise would have required months or been impossible When this has been necessary in the writer's practice, the spur appliance, already figured, Fig 2, worn for a few weeks has been sufficient in all but one case (to be mentioned later) A walking appliance is to be worn by the patient for six months until the muscles controlling the motions of the foot have gained their normal balance

The oldest patient upon whom this method has been tried was 16 years of age, and subsequent experience will have to determine whether patients above this age can be treated in this way, for at this age and below it this procedure of forcible correction followed by complete fixation in a corrected position has manifest advantages over tarsotomy, in that the foot is not mutilated, and a less dangerous method is employed In comparison with the usual practice of tenotomy, followed by gradual mechanical stretching, the new method can claim in the severer and resistant cases to save a great deal of time, as will be seen in the accompanying cases And it is needless to add that mechanical stretching is much more effective than manual force applied for the same purpose

CASES

The following patients have been treated by means of mechanical forcible rectification and immediate fixation in the manner described above

Case 1 J H, boy of 5 years of age, with double congenital equina varus of the most resistant type The patient had been operated on when an infant, but insufficiently treated, with the result of a relapsed condition and two badly deformed feet Some months were spent in an unsuccessful attempt to correct the feet without operation The feet were then stretched mechanically, tenotomy having been performed, and fixed in plaster-of-paris bandages, which were worn for six weeks The patient was then fitted with a pair of walking shoes, and discharged from treatment eight weeks after the operation, except that he was directed to report for observation from time to time At the present time, two years after operation, the patient can, when standing on the heels, raise the front of the foot slightly from the floor The motions and positions and outlines of the feet are normal, and the boy walks perfectly flat upon his sole The walking shoe was discharged after being worn a year

Case 2 S W, a boy of 5 years of age, with a similar history, except that the deformity was single The foot was rectified in two months, and sent home wearing a walking shoe As he lives at a distance, he has not been seen since, but a letter from his father, January, 1884, states that he walks perfectly, and that the foot has retained its corrected position.

August 10, 1882

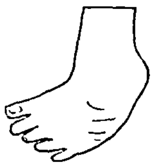

Fig 3

October 4, 1882

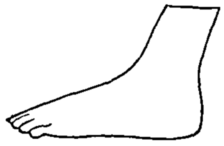

Fig 4

FROM CASTS

Case 3 A girl, 4 years of age, a similar case to the above, and the deformity corrected in the same way, and equally satisfactorily A note from the parents, January, 1884, reports that the condition of the feet remains perfectly good

Case 4 S McK, 8 years old, with a single congenital club foot of the firm type Operation and treatment the same as in the other cases Was discharged from the hospital after a stay of three months. The patient has only been seen twice in the year and a half since her discharge At the end of that time the foot was found in a normal condition, the amount of motion at the ankle being more than in any of the other cases, and indicated in the accompanying tracing, taken on a piece of paper against the leg, the sole of the foot being kept perfectly flat upon the floor

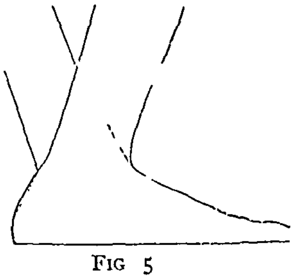

Fig 5

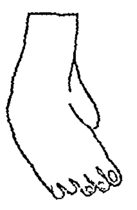

FIG 6
Drawn from cast, August, 1883

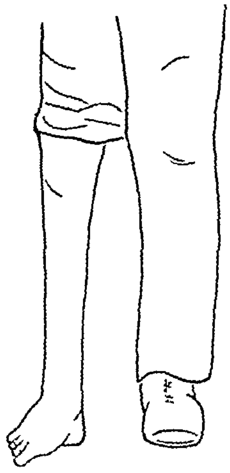

FIG 7
From photograph January 1, 1884

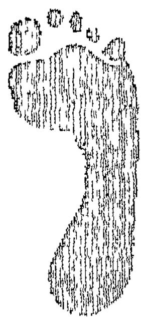

FIG 8
From imprint of sole of foot January 1 1884

CASE 5 E S , 15 years old, with a single congenital club foot of the most resistant type The patient was operated upon in the way described at one sitting A plaster bandage was applied and worn o days, some sloughs appeared, and the spur appliance put on and worn 4 weeks A walking shoe was then applied, and the patient discharged from hospital treatment, using, however, crutches in walking on account of tenderness of foot By a month, however, the crutches were discarded At the present time, April, 1884, he serves as an errand boy and is able to walk about any ordinary distance, the foot remaining as indicated in the above cut Since his discharge from the hospital the patient has been seen but six times in 6 months, and has taken care of his foot himself He prefers to wear at present his "walking appliance," a light ankle support The amount of dorsal flexion in this case is not greater than to right ankle with the leg

CASE 6 M McD , a boy 8 years old, single congenital club foot Treated as the preceding one and with a similar result Six months has elapsed since the operation and the foot is in normal position and usefulness, but the patient wears his appliance as a matter of precaution

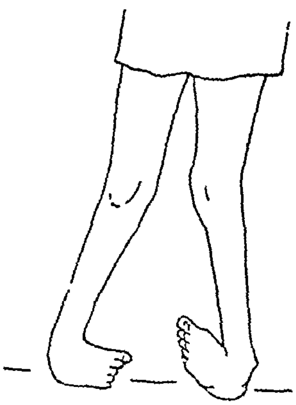

FIG 9
From photograph September, 1883

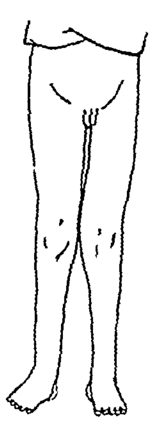

FIG 10
From photograph, January 1 1884

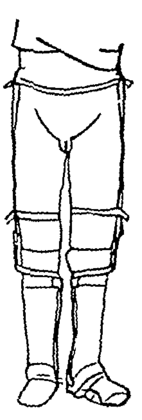

FIG 11
From photograph, January 1, 1884
Wearing appliance

CASE 7 F D , 5 years of age, with a double congenital deformity of resistant type The right foot was corrected at one sitting, but three sittings were required to bring the left foot into the position indicated in the cut, which is not perfectly normal The appliance is needed now (April 1884) upon the right foot, but further traction upon the right or another operation is required

CASE 8 M , girl 10 years of age, with a double congenital resistant club foot, which had twice undergone tenotomy with only partial success Walking shoes were applied 3 weeks after operation, and at the present time, 6 weeks later, the patient walks about freely, with the feet in a normal position Dorsal flexion at the ankle joint, however, is limited at a right angle with the leg

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THE APPLICATION OF THE LAW OF EVOLUTION IN THE STUDY OF PATHOLOGY

BY A S V MANSFELDE, M D , ASHLAND, NEB

Introductory lecture, to the course on General Pathology and Histology in the Omaha Medical College, October 7 1884

If you join me in the belief that progress would be more rapid in the ratio in which thinkers and writers avoid ambiguous terms, you will readily find an excuse for this lengthy and I hope not altogether barren introduction to the chapter which we will now consider, or, better, a few pages of the same

The application of the law of Evolution to the study of Pathology[1] For the sake of brevity, we will take it for granted that you are fully cognizant of the work of Stricker in Germany, Klein in England, of the host who have preceded them, and of the many scholars who are coworkers with them to day upon the field of Histology You admit that they have established as a truism the assertion *omne vivum e cellulis* You grant that, from the simple non-nucleated piece of protoplasm, the monera, as an effect of the forces above enumerated, in the course of time, a nucleated amœba arose with or without its enveloping membrane—forming, in the first place, the archetype of the plant, and, in the latter, the primeval ancestor of the animal Now the mammal ovum is just such an amœba, which when joined with the male sexual element, lower by far then in its development, gives rise to a community of amœbæ cells equal in dignity (synamœbæ) by a simple division of the compound cell into equal parts Soon, however, a division of labor ensues and the peripheral layer of cells throws out innumerable protoplasm arms—ciliæ—for the prehension of food and of movement,—the first attempt at polymorphismus, which afterward attains such high and complex development These ciliated synamœbæ, or *planulata*,

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NOTE —We received this address soon after it was delivered, but our pages were then crowded with the papers that had been read in the Sections of the American Medical Association, and we felt compelled to place it on file for use at a more convenient season The introductory part of the address is lengthy embracing a general review of the doctrine of Evolution and comments on leading evolutionists which we think less adapted to our pages than to the audience the author was addressing We therefore give only that part of the address relating directly to the application of the law of evolution to the study of Pathology —ED

very soon differentiate and form rudimentary alimentary canals, by saculation of their protoplasm bodies, retaining upon their surface, as well as in the cul de sac, the ciliæ—thus furnishing the progenitor of the host of *infusoria* still existing Their descendants, more highly differentiated and perpetuated in the *turbellaria* of to day, possess the first rudiments of a nervous system, the first ciliated cylinder epithelium, in the more complex canalization of their interior, to which finally rudiments of sexual organs are added (hermaphrodism) Soon, however, we meet with a class of animals which, in their maturity, declare themselves of nearest kinship to those just spoken of, the ascidia, or sea-squirt, a sacklike (*himatega*) body, composed of cellulose (which by biological right belongs to its vegetable cousin only), with a nerve-mass called by courtesy the brain, and which serves to regulate the few acts that mark the placid and rooted existence of the race Yet an examination of the larvæ of the ascidia reveals the wonder (it is true in its simplest form) of the first appearance of the spinal column and a spinal cord, the *noto chord* (?) forehadowing the coming race of vertebrates This embryo form of the ascidian, bereft in its maturity of sense-organs and nervous cord, equals that of the little headless fish, the *amphioxus lanceolatus*, which retains its primitive spinal cord and transmits it to its offspring,—the only living link between the world of vertebrates and the worms of the earth The embryo of the sea squirt furnishes the timber for the bridge from the latter to the former, the mature lancelet maintains the structure for mutual intercourse of the two branches of the animal kingdom

I have attempted to outline with as few words as possible the evolutional movement of protoplasm toward its highest development, the vertebrate animal The paleontologist, the comparative anatomist, the embryologist, each one for himself asserts the correctness of this genealogical table for every one member of the animal kingdom The paleontologist produces petrefactions which dug from the bowels of the earth, appear as witnesses to the living truths contained in his "sermon of the stones" The comparative anatomist proclaims aloud the identity of the plan of structure for all living things, and the embryologist, tracing with untiring zeal the development of the ovum into the mature being of its kind, declares without hesitation the repetition in the several stages of foetal development of the types of all its kindred, lower in the scale of evolution all the way down to the lump of protoplasm The dominion of the forces controlling and modeling organic forms is everywhere manifest "Capricious intrusion of a supernatural agency never occurs" All observation and all investigation point with unerring precision to the irresistible conclusion that man himself must be enrolled in this grand chain, as the last link, forged by the same forces, which called into existence the first one, the primogenital monera

Grant him, proud being which he is, the feeling that as the omega of evolution he crowns the magnificent structure, but admit, without deterioration of his place in nature, that the forces which have placed him there did achieve their triumph by a fight for the survival of the fittest, which admitted of no mercy and no preference The survivors remained to testify to the beneficence and correctness of the laws of evolution, and the dead admit the eternal fitness of things

The physiologist, in his investigations of the functions of the different organs of the body, which functions, when properly performed, lead him to regard the organism as healthy, has long since admitted that no proper standard exists by which he may adjudge the being healthy He has accepted, and that arbitrarily and simply upon his convictions, that a performance of the functions of organs, which produce harmony among the organs themselves, and comfort and longevity to the possessor, proclaims that being healthy The physiologist, therefore, has an ideal of health for each organ and tissue, the sum total of which furnishes him his ideal of a healthy animal Any deviation from this arbitrary standard of a retrogressive character leads him to turn the subject over to the pathologist with the remark that the vitiated function implies a deteriority of the being as compared with its highest level of evolution The pathologist accepts the charge, and at once sets out to search for changes in the body, guided by the manifestations of organic activity, as modified by the deteriority, *and these manifestations* are not those of the cells and tissues so changed, but of these and also those which remain healthy, or of the latter alone, but seldom, if ever, of the former exclusively Thus, the heart of a healthy adult averages ten ounces in weight, its contractions in quantity and quality are normal, as indicated by the pulse and instruments for measurement Its functions justify the conclusion that an harmonious relation exists between it and its sister organs, between the several tissues which compose it and the component parts, the cells, of each tissue itself But suppose the nutrition of the heart is modified, which, as you know, can be accomplished in many ways, and as a legitimate result some of its muscle cells degenerate fatty degeneration, the offspring of deteriorated nutrition, terminates the life and existence of a number of cells

Now a feeble, easily compressed pulse manifests itself—the veins of the lower extremities are passively hyperæmic, the vessels of the brain anæmic, the former accompanied by slowly healing ulcers, the latter by headache and spells of fainting Digestion is feeble, the mind sluggish in action, everything betokens lessened activity,—but is this the picture presented by the cells, which are fattily degenerated? They are dead, or dying, undergoing dissolution, perhaps submitting to purely mechanical changes of the chemical variety I say "perhaps," because it may be otherwise—the free cells of the connective tissue of the heart, the white blood corpuscles and lymphoid cells may, as a recent author asserts, devour the cells which, weakened by starvation, no longer resist the greedy scavengers of the body To the contrary, the whole picture, the symptomatology of fatty degeneration of the heart is exhibited by the muscle-cells still saved to the organ, and not yet touched by the causes which affected and destroyed the former The cells still existing suffice to exhibit the functions peculiar to the heart, yet upon a far lower level of evolution than was manifested by the organ prior to the degeneration of some of its colony of cells, and this lower level of evolution is also shared by all the organs which, by division of labor, stand in any relation to the heart, and this being true for every organ and every tissue of the body, the whole being is reduced to a lower level of evolution,—a level which in no wise furnishes the requisites of success in the fight for existence The being thus lowered can lead the life of a human parasite for some time, but when compelled to join the multitude in the race for life, will soon finish his earthly career But immaterial whether the course of life be rapid or slow, up to the ideal of the physiologist, or down to the limits which the pathologist declares compatible with existence, the structure of organs is the same in health and disease, the functions likewise are the same in *kind* as those of health "Virchow considers disease processes as being healthy processes occurring at the *wrong time* or at the *wrong place* * * * Disease processes are usually characterized by an *excess* or *deficiency*, as compared with the normal" We may therefore with propriety say "that disease is a deviation from health, and that this deviation consists, for the most part, in an excess or deficiency, or a perversion as to time and place"

Based upon these facts a recent author declares that remedies can only exert beneficial action when they *retard* or *hasten* function (Bartholow) We can heartily concur in this declaration, only adding that they may also influence function as to the *place* of occurrence

It will thus be seen that the forces which have created man are in no wise concerned in the necrobiosis of the cells of his tissues—the death of his organs, or of himself These forces come into play only when man strives to maintain his place in the world against his fellow, or against the odds presented by his environment It is the relation of organ to organ and being to being which offers through the forces of evolution the means for survival or of extinction Thus six-fingered ancestors are very apt to transmit to their descendants the same number of digits, opening thereby avenues for the invention of new instruments for six-fingered people, and in consequence means through which, in a fight for existence, the six fingered man might supplant his five-fingered cousin (Continuous transmission)

Again, every physician knows that tubercle may remain latent in one generation to present all its horrors in the next The lesson is plain Cousins, whose parents succumbed to tubercles, though they themselves present no marked characteristics of the malady, should never marry, because their offspring, in all likelihood, will fall an easy pray to the dread disease (Interrupted or latent transmission)

The annals of obstetric practice furnish many data showing that fathers will transmit to their sons great fecundity The same may be said of the mothers as influencing their daughters Sterility obeys the same law for both sexes The transmission of the capacity for plural births, both of males to males and females to females, belongs here (Sexual transmission)

We have also long since observed and put into everyday practice, purposely, in the breeding of our domestic animals, and instinctively in the intermarriage of human beings, the law by the workings of which peculiarities of both the parents are transmitted to the offspring — in man often to the detriment of his descendants, for an example, the intermarriage of deaf mutes, which causes the multiplication of these unfortunates to an alarming extent, sufficiently so to ask for legislation to prevent the marriage of such people (Mixed or mutual sexual transmission)

There are very few persons who, at the age of maturity, have not observed, or at least heard of, that dreaded disease, syphilis, acquired by the parent innocently or otherwise, of which it may truly be said, "it visits the children to the third and fourth generation (Transmission of acquired characteristics)

I have picked a few data from the experience of every physician to show that the laws of inheritance, as applied to man, may, under circumstances, influence his body, so that he is reduced to a lower level of evolution—a fit subject for the consideration of the pathologist, and, indeed, every thoughtful practitioner I will not tire you with instances wherein the laws of adaptation play the role of reducing the capacity for existence, in like manner as the laws of transmission, for who has not observed the deadly influence of the malaria-breeding swamp as a residence, earth and air and water furnish conditions detrimental to health and life

Can the physician, who fails to comprehend the value of a correct understanding of all these things, can he successfully combat disease, will he be a competent guide to health and happiness and threescore years and ten?

Students, if my effort has succeeded in making your head ache in the contemplation of what you ought to know as physicians, I have achieved success Your teachers, myself included, are like the quack who asserted that he caused a change into rheumatism of all the diseases of which his patrons were possessed, because he was "death on rheumatism" *We hope to be death on the headaches produced by earnest inquiry!*

To you, my fellows in the profession, who by personal experience can appreciate the difficulties which must beset every student who attempts to study pathology, that part of the *science* of medicine which actually demands a thorough knowledge of biology in its widest sense, I appeal for corroboration of the assertion, that of all the branches of medicine which it has been your fortune to study, *none* has been so important to you, after you entered upon your professional career, as a thorough knowledge of pathology

And to all of you who may not have found time to make careful inquiry of the influence which the theory of evolution possesses in the study and practice of medicine, and therefore have ignored or neglected it, I say "Do not reject it! There is no thought of modern times that more magnifies the unutterable glory of Almighty God! Remember, I beseech you, what was said by one of old times

very soon differentiate and form rudimentary alimentary canals, by saculation of their protoplasm bodies, retaining upon their surface, as well as in the cul de sac, the ciliæ—thus furnishing the progenitor of the host of *infusoria* still existing Their descendants, more highly differentiated and perpetuated in the *turbellaria* of to day, possess the first rudiments of a nervous system, the first ciliated cylinder epithelium, in the more complex canalization of their interior, to which finally rudiments of sexual organs are added (hermaphrodism) Soon, however, we meet with a class of animals which, in their maturity, declare themselves of nearest kinship to those just spoken of, the ascidia, or sea-squirt, a sacklike (*himatega*) body, composed of cellulose (which by biological right belongs to its vegetable cousin only), with a nerve-mass called by courtesy the brain, and which serves to regulate the few acts that mark the placid and rooted existence of the race Yet an examination of the larvæ of the ascidia reveals the wonder (it is true in its simplest form) of the first appearance of the spinal column and a spinal cord, the *noto chord* (?) forehadowing the coming race of vertebrates This embryo form of the ascidian, bereft in its maturity of sense-organs and nervous cord, equals that of the little headless fish, the *amphioxus lanceolatus*, which retains its primitive spinal cord and transmits it to its offspring,—the only living link between the world of vertebrates and the worms of the earth The embryo of the sea squirt furnishes the timber for the bridge from the latter to the former, the mature lancelet maintains the structure for mutual intercourse of the two branches of the animal kingdom

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Grant him, proud being which he is, the feeling that as the omega of evolution he crowns the magnificent structure, but admit, without deterioration of his place in nature, that the forces which have placed him there did achieve their triumph by a fight for the survival of the fittest, which admitted of no mercy and no preference The survivors remained to testify to the beneficence and correctness of the laws of evolution, and the dead admit the eternal fitness of things

The physiologist, in his investigations of the functions of the different organs of the body, which functions, when properly performed, lead him to regard the organism as healthy, has long since admitted that no proper standard exists by which he may adjudge the being healthy He has accepted, and that arbitrarily and simply upon his convictions, that a performance of the functions of organs, which produce harmony among the organs themselves, and comfort and longevity to the possessor, proclaims that being healthy The physiologist, therefore, has an ideal of health for each organ and tissue, the sum total of which furnishes him his ideal of a healthy animal Any deviation from this arbitrary standard of a retrogressive character leads him to turn the subject over to the pathologist with the remark that the vitiated function implies a deteriority of the being as compared with its highest level of evolution The pathologist accepts the charge, and at once sets out to search for changes in the body, guided by the manifestations of organic activity, as modified by the deteriority, *and these manifestations* are not those of the cells and tissues so changed, but of these and also those which remain healthy, or of the latter alone, but seldom, if ever, of the former exclusively Thus, the heart of a healthy adult averages ten ounces in weight, its contractions in quantity and quality are normal, as indicated by the pulse and instruments for measurement Its functions justify the conclusion that an harmonious relation exists between it and its sister organs, between the several tissues which compose it and the component parts, the cells, of each tissue itself But suppose the nutrition of the heart is modified, which, as you know, can be accomplished in many ways, and as a legitimate result some of its muscle cells degenerate fatty degeneration, the offspring of deteriorated nutrition, terminates the life and existence of a number of cells

Now a feeble, easily compressed pulse manifests itself—the veins of the lower extremities are passively hyperæmic, the vessels of the brain anæmic, the former accompanied by slowly healing ulcers, the latter by headache and spells of fainting Digestion is feeble, the mind sluggish in action, everything betokens lessened activity,—but is this the picture presented by the cells, which are fattily degenerated? They are dead, or dying, undergoing dissolution, perhaps submitting to purely mechanical changes of the chemical variety I say "perhaps," because it may be otherwise—the free cells of the connective tissue of the heart, the white blood corpuscles and lymphoid cells may, as a recent author asserts, devour the cells which, weakened by starvation, no longer resist the greedy scavengers of the body To the contrary, the whole picture, the symptomatology of fatty degeneration of the heart is exhibited by the muscle cells still saved to the organ, and not yet touched by the causes which affected and destroyed the former The cells still existing suffice to exhibit the functions peculiar to the heart, yet upon a far lower level of evolution than was manifested by the organ prior to the degeneration of some of its colony of cells, and this lower level of evolution is also shared by all the organs which, by division of labor, stand in any relation to the heart, and this being true for every organ and every tissue of the body, the whole being is reduced to a lower level of evolution,—a level which in no wise furnishes the requisites of success in the fight for existence. The being thus lowered can lead the life of a human parasite for some time, but when compelled to join the multitude in the race for life, will soon finish his earthly career. But immaterial whether the course of life be rapid or slow, up to the ideal of the physiologist, or down to the limits which the pathologist declares compatible with existence, the structure of organs is the same in health and disease, the functions likewise are the same in *kind* as those of health. "Virchow considers disease processes as being healthy processes occurring at the *wrong time* or at the *wrong place*. * * * Disease processes are usually characterized by an *excess* or *deficiency*, as compared with the normal." We may therefore with propriety say "that disease is a deviation from health, and that this deviation consists, for the most part, in an excess or deficiency, or a perversion as to time and place."

Based upon these facts a recent author declares that remedies can only exert beneficial action when they *retard* or *hasten* function (Bartholow). We can heartily concur in this declaration, only adding that they may also influence function as to the *place* of occurrence.

It will thus be seen that the forces which have created man are in no wise concerned in the necrobiosis of the cells of his tissues—the death of his organs, or of himself. These forces come into play only when man strives to maintain his place in the world against his fellow, or against the odds presented by his environment. It is the relation of organ to organ and being to being which offers through the forces of evolution the means for survival or of extinction. Thus six-fingered ancestors are very apt to transmit to their descendants the same number of digits, opening thereby avenues for the invention of new instruments for six-fingered people, and in consequence means through which, in a fight for existence, the six fingered man might supplant his five fingered cousin. (Continuous transmission.)

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'Ye men of Israel, take heed to yourselves, what ye intend to do And now I say unto you, if this counsel be of men it will come to naught, but if it be of God ye cannot overthrow it, lest haply ye be found fighting against God ' Shall I continue the quotation ?—'and to Him they all agreed ' "

JABORANDI AS A GALACTAGOGUE

BY CHARLES WESLEY ROOK, M D, QUINCY, ILL

Gentlemen of the Adams County, Ill , Medical Society Permit me to again direct your attention for a few moments to the medicinal agent, jaborandi In an article read in your presence, February 11, 1884, and published in the St Louis *Medical and Surgical Journal,* April, 1884, I gave some of my experience with jaborandi In that paper was reported a case illustrating the galactagogue action of this agent

The case reported is briefly this

"Mrs J B S , A primipara, confined January 1, 1884 Labor natural and comparatively easy, child, female, average size and well developed As the breasts secreted no milk the child was artificially nourished for a few days The mother and child progressed well until January 6, when I was hastily summoned, and found Mrs S suffering severely from headache, high fever, the surface of the body being hot and dry, pulse 130 per minute, and her breasts more tense and painful than they had yet been Not having with me anything that would give her relief more quickly, or better meet the indications present than the extractum pilocarpi fluidum, she was given a ♏xij dose, with directions for its repetition every half hour, until free diaphoresis was induced The desired effect followed the third dose

Simultaneously with the appearance of the perspiration and the increased flow of saliva, the milk began flowing in a stream from the left breast, and so continued during the active stage of diaphoresis On the following day, while the skin was yet moist from the jaborandi received the evening previous, milk began flowing from the right breast "

At no subsequent period has that little child lacked nourishment In the discussion following the reading of my paper, with reference to the case just mentioned, this question was asked "Don't you think that the milk was just about ready to be secreted, and that its secretion would have occurred soon without the use of jaborandi ?" I answered "That, as the secretion was not established before, and occurring in such abundance upon the exhibition of jaborandi, I naturally attributed this sudden increase of functional activity to the jaborandi "

Since then, I have administered jaborandi in four cases in which there was a deficiency of milk secreted, with the intention of increasing the supply, and with results, in each case, nearly as marked as in the one reported It is to neither of these cases that I ask your attention, but to another case in which I claim strong circumstantial evidence, if not proof positive, concerning the galactagogue action of jaborandi

Mrs L S M , who is in feeble health, weighing less than 110 pounds, is thirty eight years of age, been married fifteen years, and has given birth to nine children, five of whom are now living Mrs M furnished an abundance of milk for the nourishment of her first child, but on account of a failure of her supply of milk, the cause of which I could not learn, she was not able to nurse either of her next seven children, which in lieu of their mother's breast received the bottle Of the seven there yet remaineth three little pale-faced children as living witnesses to the preservative power of the bottle

January 3, 1885, I was called to see Mrs M On my arrival I found the labor just completed An average-sized male child was born, and being yet attached to the cord, the latter was severed, and the mother and child made as comfortable as possible Inquiry concerning the condition of the breasts was made, when the history as above noted was elicited On physical examination of the mammary glands, no signs of functional activity could be observed within them Directions were accordingly given for the artificial feeding of the child I then told Mrs M that if her milk did not appear within a few days I would give her some medicine which would cause the secretion of milk in abundance Three days after confinement, the mammary glands yet remaining inactive, she was ordered ♏xxx doses of ext jaborandi fl every half hour, until free perspiration and salivation were produced These effects were attained upon the exhibition of the fifth dose The only noticeable effect upon the mammary glands was a slight enlargement My patient, being very weak, was allowed an interval of one day in which to somewhat recover from the depressing effect of the free diaphoresis, then, as the condition of the mammary glands remained unchanged, she was given four ♏xxx doses at intervals of one-half hour, when the usual effect upon the skin and salivary glands was produced, while the following effect upon the mammary glands was noted On this second exhibition of jaborandi the breasts rapidly filled, becoming tense and painful, but the pain and tension were soon relieved by the free flow of milk from each breast

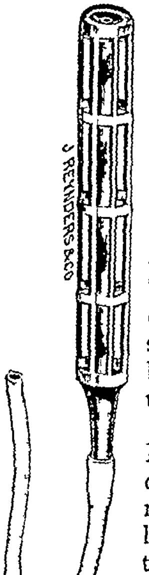
Here ended, for the present, any further necessity of artificially feeding the child

Three weeks later I was called to see the child, and was informed that more milk was secreted than the child could nurse, the excess flowing freely from her breast One week later I called in order to obtain a later report for my paper, and was surprised to find that the milk supply had failed and that the child was again nursing the bottle I also learned that my patient had had, ever since the first appearance of the milk, a great fear that the supply would soon be exhausted, and wanting to do what she could to continue the secretion, had taken from the commencement, and without my advice, a daily ♏xxx dose of ext jaborandi fl The drug was ordered discontinued for two days, at which time, the mammary glands exhibiting no signs of their former activity, she was given three ♏xxx doses of ext joborandi fl , at intervals of half an hour, which produced free perspiration, salivation, lachrymation, enuresis, and, as we had hoped, a free lacteal discharge from each breast The further use of the drug is forbidden Nearly two weeks have elapsed since the last exhibition of ext jaborandi fl , and my patient is secreting an abundance of milk From my own experience with this medicinal agent, I am convinced that, in addition to the properties which make it a valuable diaphoretic, jaborandi has, first, a special stimulating effect upon the mammary secretions, second, the continued *exhibition of the agent will be followed by functional exhaustion of the mammary glands,* and third, a functionally exhausted mammary gland may, after an interval of rest, be again stimulated to activity by the proper exhibition of jaborandi

Feb 17th, 1885

COMBINED RECTAL AND INTRA-UTERINE IRRIGATOR

BY JNO S COLEMAN, M D , AUGUSTA, GA



In the *Medical Record* of New York for May 10, 1879, I presented to the medical profession the *Metro Clyst* I now desire to call attention to a modification of this instrument which makes it available for the diseases of the rectum and surrounding pelvic structures The instrument was skillfully constructed for me in April of last year by Messrs Reynders & Co , of New York city It is of hard rubber, and consists of a cylindrical frame or cage traversed by a central tube This arrangement insures the easy exit of the injected fluid Any ordinary syringe can, by means of rubber tubing, be attached to it My preference in the use of hot water is for the syphon

Thanks to the genius of Dr T A Emmet, we all now appreciate the indispensable value of hot water in inflammation and as a hæmostatic Though I have not yet had an opportunity of testing the merits of this instrument in pelvic cellulitis or peritonitis, I feel confident that we will find it one of our most efficient measures in combating these serious and obstinate forms of disease So far as I am informed, Dr J R Chadwick was the first to advocate the rectal use of hot water in the treatment of pelvic inflammations (*Vide* his able and interesting paper in the Transactions of the American Gynæcological Society for 1880) To me it promises much in acute prostatitis, rectitis, and internal hæmorrhoidal troubles

I have had most gratifying success from its use in a case of puerperal endo metritis, and in one of rectal ulcers

Apomorphine in Asthma —Dr Weber, of Darmstadt, has used apomorphine, in doses of one-twelfth of a grain three times a day, in chronic asthma, with success —*Chi Med Journal*

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS.

Practical Remarks on the Use of Electricity in Mental Disease

Dr A DeWatteville writes, in *The Journal of Mental Science,* very encouragingly on the benefits of this treatment in mental disease, and considers the following as the chief indications to govern its use

First—To promote the equilibrium of the cerebral innervation by acting directly on the nutrition of those centers which are deficient, functionally or organically, through molecular, vaso-motor or other influences Experience shows we can do this, in some cases, by direct galvanization of the head and neck

Second—To rouse up the peripheral and spinal innervation, and to indirectly restore their necessary equilibrium by supplying a deficiency in the different influxes upon which it partly depends Here galvanization of the spine, and general faradisation (with the moist electrode or wire brush, according to the requirements of the case) will be of service

Third—When the cerebral troubles are connected with some disturbance of the abdominal or pelvic viscera (visceral parœstheriæ, torpidity, and the like) to correct or mitigate the latter by the application of either current, or, better still, by galvano faradisation The value of electricity in visceral neurosis is very great, though hitherto unrecognized

Fourth—To relieve certain symptoms as they arise according to the rules laid down in the usual treatises It must not be forgotten, for instance, that general faradisation is a good tonic and excitant of general nutrition In some cases, again, appropriate electrization acts as a promoter of sleep

Meat Preparations —Dr Stutzer, Director of the Imperial Agricultural Chemical Laboratory, Bonn, Rhenish Prussia, has been, for several years (*Midland Medical Miscellany*), testing articles of food introduced into Germany for the use of invalids and children In the tests applied to meat preparations, he first established the percentage of organic ingredients, mineral ingredients (salt) and water, and secondly, he tried, as far as feasible, to decompose the organic principles in them, determining, for instance, what proportion of nitrogen must be credited to the easily digested albumen and to peptone , and thus estimated, in the usual way, by multiplying by 6 25 (assuming that the constituent principles contained, on an average, 16 per cent of nitrogen) the quantity of albumen and peptones As certain of the preparations contained no albuminous principles (fibrine) that were soluble in water, with these it became necessary to ascertain, by means of an additional digesting experiment, how much of the albuminous principles can be digested Next, he took into consideration the quantity of nitrogen present in the form of meat bases (such as creatine, camine, etc), because these meat bases, together with potash and phosphoric acid, possess a very high importance as relishing and stimulating means for the nervous system The analysis of the mineral components went to the determination of phosphoric acid, potash and chlorine

The most nourishing of the preparations analyzed proved to be Carnrick's beef peptonoids, as in this preparation there was in 100 parts (by weight) as much peptone and readily digestible albumen as there were in

178 parts (by weight) of Johnston's Fluid Beef,
285 parts (by weight) of Kemerich's Extract of Beef,
483 parts (by weight) of Murdock's Liquid Food,
765 parts (by weight) of Brand & Co's Essence of Beef,
784 parts (by weight) of Lawry & Moore's Fluid Meat,
898 parts (by weight) of Liebig's Extract of Beef,
902 parts (by weight) of Benzer's Peptonized Beef Jelly

Carnrick's Beef Peptonoids present another distinguishing mark, as containing a not inconsiderable quantity of heat-producing and albumer-economizing elements, viz 10 67 per cent fat and 10 02 per cent of soluble non-nitrogenized substances, such as dextrine and sugar From this standpoint, Liebig's extract of meat, a favorite though it be, must be relegated to a subordinate rank, and it will thus be seen that, as for that matter, the makers themselves admit it is not an article of food, but a stimulant or appetizer, in consequence of its high percentage of meat bases (creatine, etc), and phosphate of potash, in which respect it surpasses other preparations

But he arrives at very different numerical ratios of proportion by comparing the percentages of nitrogen recurring in the form of meat bases in these preparations He excludes from his table Carnirck's beef peptonoids, which contain but a slight proportion of these elements, and also Lawry & Moore's fluid meat, which latter contains, in addition to the meat bases, other unknown nitrogenized combinations, and therefore a comparison of the fluid meat with the other preparations would be inadmissible

One hundred parts (by weight) of Liebig's extract of meat contain the same quantity of nitrogen in the form of meat bases, in

126 parts (by weight) of Kemmerich's Extract of Beef,
558 parts (by weight) of Johnston's Fluid Beef,
1,844 parts (by weight) of Benzer's Peptonoid Beef Jelly,
4,161 parts (by weight) of Murdock's Liquid Food,
5,053 parts (by weight) of Brand's Essence of Beef

If a medical man desires to give an invalid or convalescent a preparation, by the use of which the formation of flesh and blood is to be promoted, and vigor infused into a patient, it will be his duty to examine into the proportions of easily digested albumen and peptones contained in any particular food preparation, and in this respect, as may be seen from the foregoing table, Carnrick's Beef Peptonoids stands first and foremost among the preparations examined

MEDICINE.

CLINICAL OBSERVATIONS ON THE BLOOD OF THE INSANE —Dr S Rutherford Macphail, in *The Journal of Mental Science,* gives this summary of an interesting and extended article

1 While there is no evidence to show that anæmia in itself is a cause of insanity, yet an anæmic condition of the blood is undoubtedly in many cases intimately associated with mental disease

2 The blood in the demented class of asylum patients is deficient in hæmoglobin and in hæmacytes, and the deterioration progresses as age advances

3 The blood in patients known to be addicted to masturbation is deteriorated in a marked degree

4 The blood is below the normal standard in general paralysis, and the deficiency is greater in the active and completely paralyzed stages of the disease than in the intervening periods of inactivity and quiescence

5 While there is a deficiency in the quality of the blood in epileptics, the decrease is not so pronounced as in ordinary dements at the same age

6 Prolonged and continuous doses of bromide of potassium do not cause deterioration in the quality of the blood

7 Prolonged attacks of excitement have a deteriorating influence on the quantity of the blood

8 The blood of the average number of patients on admission is considerably below the normal standard

9 In patients who recover, the quality of their blood improves during residence in the asylum, and on discharge is not much below the normal standard

10 There appears to be a close connection between gain in weight, improvement in the quality of the blood, and mental recovery

11 While there is a definite improvement in the condition of the blood during mental convalescence in all cases, the improvement is both more pronounced and more rapid in those who have had tonic treatment

12 The four tonics which, either alone or in combination, proved most efficacious in restoring the quality of the blood, as shown by these observations, may be classed in order of value thus (*a*) iron, quinine and strychnia, (*b*) iron and quinine, (*c*) iron alone, (*d*) malt extract

13 Arsenic proved of little value as a blood tonic in these cases, and the observations with quassia and cod liver oil did not give satisfactory results

14 The close connection which exists between improvement in the quality of the blood, increase in weight, and mental recovery, the converse which exists in cases of persistent and incurable dementia, and the marked improvement which is effected by certain remedial agents—show that this line of clinical research, more especially with reference to the curative treatment of the insane, should have more attention paid to it than has hitherto been the case

THE THERAPEUTIC ACTION OF ACONITUM FEROX OR INDIAN ACONITE —Dr D. H Cullimore brings this drug to our notice in a paper read before the section of *Pharmacology* and Therapeutics of the British Medical Association, and reported in the *British Medical Journal*. The United States authorities, in common with the British and French, recognize only the aconitum napellus. The aconitum ferox sen vivosum is the most powerful and deadly of all the species of aconitia. A preparation of the root is much used in the Himalaya Mountains, where it is a native, to poison arrows. Dr Cullimore details some 13 cases in which he has used it. As an external application he thinks it distinctly superior to aconite liniment. It is more diuretic, and less diaphoretic than the aconitum napellus, and probably, also, because it is less diaphoretic it is less antipyretic. As an anæsthetic, or dysæsthetic, in gouty and rheumatic conditions, it is superior to the aconitum napellus, while, as a vascular depressant, in small doses it is not so powerful. In minute doses it probably acts as a cardiac stimulant. In small doses, it stimulates the nervous system at all parts, and peripherally. In moderate doses it causes dysæstheria, perversion of sensation, as exemplified by the tingling and numbness, while, in larger doses, it is an anæsthetic, and a paralyzer of the nerves and other centers. Its first action on the nervous system, with its diaphoretic effect, will probably be found to explain its good effect in leprosy.

Its first effect is to produce heat, followed by lowering of the temperature and cold perspiration. Its antipyretic effect is due to a lowering of the central circulation, by which it lessens the production of heat, while, by its diaphoretic action, it facilitates its removal. When given in chronic-rheumatic conditions, it may be given till tingling is produced, whereas, in acute rheumatism, its action on the heart, though useful in moderate doses in the early stages, and in small throughout, must be carefully noted later on in this disease. In still larger doses, it causes nausea and vomiting, muscular tremors of the limbs, profuse cold sweats, disappearance of the painful peripheral sensations, dryness of the throat and fauces, ardent thirst, alternations of heat and cold, great irregularity of the heart's action and of respiration, feebleness, and even loss of muscular power, great and burning heat of the stomach, throat and intestines, attended with some muscular cramp, extending to nails, lips and heart. This, if life be prolonged, is followed by inflammation, convulsions, intoxication, delirium and death, which is sometimes attended with stupor, though at others the mind remains clear to the last.

With regard to the aconitum heterophyllum, it is known in India, under the name of atees, as a powerful tonic and aphrodisiae medicine. It possesses more of the poisonous, antipyretic, or anodyne properties of the other species of aconite. Sixty grains were given to a large dog without any injurious effect. As a tonic it is useful. As an aphrodisiac, Dr Cullimore had had no personal experience, but the late king of Burmah, who kept seventy wives, and whose opinion, therefore, is deserving of respect, held it in high esteem.

ON THE NATURE OF SYMPATHETIC OPHTHALMIA.—Deutschmann, in an elaborate paper in *Græfe's Archiv*, gives (Ed MEDICAL JOURNAL), as the result of experiment and observation during the last two years, a large amount of very strong evidence in favor of the view held by Leber and others—that the transferrence of destructive inflammation from one eye to the other takes place along the optic nerves. By injecting the spores of staphylococcus pyogenes aureus into the vitreous chamber of one eye of a rabbit, on the second day there were marked hyperæmia of the disc of the other eye, and symptoms of meningitis. Microscopic post-mortem examination on the third day showed purulent infiltration of the optic nerve of the first eye, traced to the chiasm and down the nerve of the second eye to the papilla, the piamater of the base of the brain being inflamed. In all the situations involved in the infiltration, micro organisms—the same as those injected—could be found. Weak solutions of these spores produced death at longer intervals, with no symptoms of meningitis. These experiments never induced a definite iritis, probably, it was thought, because the animal died before the inflammatory action reached the more anterior portions of the eye. The direction of the lymph current in the optic nerve is from the center toward the eye, and this fact is used to explain why meningitis does not occur unless the inflammation in the first eye be extremely intense. The micro organisms, as they grow in the first eye, creep up the corresponding nerve until they reach the base of the brain, from whence they are carried by the lymph current down the opposite nerve, in that way reaching the other eye. Deutschmann made a microscopic examination of all the eyes at his disposal which had been removed on account of a sympathetic inflammation of the other eye, making use of the new methods of staining for the detection of micro organisms. In all the eyes examined, with one exception, he found distinct micro-organisms, and these, too, were always to be found in the nerve. In four fresh cases the eye on removal was soaked with boiled distilled water, then opened and a small amount of pus, in the vitreous or elsewhere, put into blood serum, and treated according to Koch's method for micro organisms. The micro-organism obtained was identical with the one before mentioned, and when injected into the vitreous of living rabbits produced the same symptoms, preparations also obtained from the blood of the animals (which as before were always found to die eventually of septicæmia) were found to be not less virulent in their action than the original preparations. One of the human eyes from which these cocci were obtained, was removed from the patient before any affection of the other eye had taken place, although there had been a possibility of sympathetic inflammation existing for four years. This fact is interesting, showing how long the micro organisms may retain their dangerous properties—the fact of these remaining dormant so long being probably due to the mass of pus from which they were taken being more or less incapsuled in the eye. In another case a portion of iris removed from the sympathetically inflamed eye furnished the same cocci The results of his investigations led him to the conclusion which he expresses as follows "I have been led by all the facts brought forward to form the opinion that in all probability the sympathetic ophthalmia met with in man is an inflammation spreading from the first to the second eye along the optic nerve, that the exciting cause is either a micro-organism, which in some manner has been introduced into the eye, or perhaps, though rarely, a chemical irritant as well"

SURGERY.

ON LIFE SAVING FROM DROWNING BY SELF-INFLATION —Dr Henry R Silvester, who is a Fothergill Medalist of the Royal Humane Society, makes the following remarkable suggestions in a recent number of the *Lancet* He has already demonstrated at the International Fisheries Exhibition the possibility of inflating the subcutaneous space in animals so as to render them sufficiently buoyant to be employed either singly or yoked together to convey persons from a wreck to the coast, and later, by means of a blow-pipe and elastic syringe, he inflated at the wrist the subcutaneous tissue of the whole body with the result that in a few minutes sufficient air passed under the skin to support a weight in water of between forty and fifty pounds This amount is considerably more than would be required to preserve a person from drowning, nine or ten pounds being considered sufficient

His proposed operation consists in making a small puncture—not larger than would allow, for instance, of the passage of an ordinary blow-pipe—in the mucous membrane of the inside of the mouth, the object being to open a communication for the passage of air from the cavity of the mouth into the subcutaneous spaces of the neck The situation chosen for the puncture is in the angle formed between the gum of the lower jaw and the side of the under lip or cheek about opposite the first molar tooth of the lower jaw The point of the instrument perforating should be passed down a short distance between the skin of the side of the face and the superficial fascia of the neck, taking care not to puncture either the skin or the superficial fascia This having been done, and the instrument removed, in order to inflate the skin of the neck and chest, the patient should close the mouth and nose, and make a succession of forcible expiratory efforts, when the air contained in the cavity of the mouth will pass freely into the subcutaneous tissue of the neck These expiratory efforts, inspiration being effected through the nostrils, should be continued until the skin is fully distended with air, which will pass readily to both sides of the neck and down the chest as far as the nipples, and this is all that is required to render the body buoyant in water Should it so happen that the superficial fascia has been punctured and the air pass beneath it, the only difference in effect would be that the extent of air would be limited by the attachments of that membrane to the clavicle below and he border of the jaw above The amount of air which the skin of the average neck is capable of holding without undue distension has been measured, and found to be enough *to support ten pounds, and this is amply* sufficient to support the body immersed in water The time required for inflation is found to be less than three minutes The neck may be kept in an inflated condition by closing the puncture by pressure on the outside of the cheek by the finger, or by keeping the mouth distended with air, and when required the air may be immediately discharged from the neck by allowing the puncture to remain open, or by suction

The advantages he sums up as follows —1 The proceeding is perfectly harmless and almost painless, quickly done, and almost immediately recovered from 2 It may be learnt in a few minutes, no technical knowledge being required, and may be accomplished by the person himself without assistance 3 No special apparatus is required In an emergency the point of a penknife, or even a sharp pointed splinter of wood, is all that would be required The inflating apparatus is the person's own lungs 4 The air could be repeatedly re inflated, and even during prolonged immersion

OBSTETRICS AND GYNÆCOLOGY.

THE TREATMENT OF THE UMBILICAL CORD —Crede and Weber (Leipzig in the *Archiv f Gynak*, *Edin Med J*) set themselves to answer the questions, How is bleeding from the divided cord to be obviated? and, How is inflammation and its results, of the fœtal portion, to be prevented? In the first place, they state that they are dissatisfied with the ordinary methods of secural by tape or linen, but both from clinical experience and as a result of experiments made on cords post partum, they recommend strongly the use of elastic ligatures, as suggested by Budin, and as used by them in Leipzig for the past eighteen months, with perfectly satisfactory results The ligature used is 2 mm thick, and is tightly wrapped round the cord, tied, and again taken half round and retied As by this means the operator can be perfectly certain that there will be no bleeding, the point ligatured should be close to the skin on the cord, as, according to the writers, the shorter the portion left attached to the child, the less chance is there of traumatic inflammation The after-treatment simply consists in keeping dry wadding round the stump, and carefully drying after the child has been bathed Since the above treatment has been followed in the Leipzig Maternity, there have been no cases of umbilical disease

STATE BOARD OF HEALTH OF WEST VIRGINIA —The vacancy in this Board caused by the resignation of Dr James E Reeves, has been filled by the appointment of Dr L D Wilson, of Wheeling, W Va, by the Governor of the State

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

Subscription Price including Postage

Per Annum in Advance $5,00
Single Copies 10 cents

Subscriptions may begin at any date The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters

Address

Journal of The American Medical Association,
No 65 Randolph Street,
Chicago Illinois

SATURDAY FEBRUARY 28, 1885

MEDICAL EDUCATION AND THE AMERICAN MEDICAL ASSOCIATION

Camden, N J, Feb 9, 1885

Editor Journal of the American Medical Association

Dear Doctor I have not seen any report in the Journal of the resolution on medical education offered by me and passed at the last meeting of the American Medical Association at Washington

On offering the resolution, I stated that I was impelled by the consideration of the facts that, for years past, men could graduate at our leading colleges without ever having so much as felt a man's pulse or listened to a diseased lung, that the science of medicine was the most difficult and complex of all sciences, that the proper understanding of the human system, the intricate nature of disease the difficult problems of therapeutics, really required and should receive more training for their proper understanding and application than the art of shoeing a horse or making a shoe for a human being, that the two courses of instruction of about five months each, alleged to have been given a graduate by about ninety out of one hundred American Medical Colleges, was ridiculous in the extreme, that the courts and the intelligent people of this country as well as abroad had refused to acknowledge that the diplomas of these colleges represented a proper medical education, that I had been officially informed by letter that the University of New York had to abandon the effort recently made to give a better course of instruction and go back to the ten months' course, "*because the profession would not support it*," and that the issuing annually of thousands of diplomas to young men thoroughly unprepared to assume the awful responsibilities of a physician was an outrage on the community and ruinous to the profession itself

Since last spring the subject has been extensively discussed all over the country and in the different medical journals, and the silence of our Journal has been extensively commented upon I have therefore sent you with this letter two or three marked articles, which I hope will enable you to publish a pretty fair account of that important matter as it was handled at our last meeting —Very respectfully yours,

D Benjamin

In regard to the first clause in the foregoing letter, we have only to remark, that if our correspondent has not seen any report of his resolution in the Journal, it is because he has not looked in the right place for it *If he will look over the full record of the* proceedings of the meeting in Washington, as reported officially by the Permanent Secretary, and published in the Journal for May 24, 1884 (only a little more than two weeks after the meeting was held), he will find, on page 565, of volume 2, his resolution correctly given, together with the fact of its discussion and adoption We have copied his letter here, however, more particularly for the purpose of correcting the impression apparently entertained by many, as indicated by the criticisms, or more properly the disparaging remarks, frequently heard concerning the unwillingness of the American Medical Association to allow a free discussion of the subject of medical education at its annual meetings It is proper to say that, so far as we have observed, these disparaging remarks are made either by members who have begun to take part in the doings of the Association only during the last few years or by editors of medical journals who have never taken the trouble to attend half-a-dozen meetings or even to maintain an active membership in the Association, or to make themselves acquainted in any adequate degree with the past action of the Association in regard to the important subject of the education of our profession If these zealous friends who have not yet learned that the adoption of a resolution by a society organization, declaring what *ought to be done*, is not quite equivalent to the enactment of a law by a properly constituted legislative body will take a glance over the first twenty annual volumes of Transactions, they will find in each the record of an able report from the standing committee on Medical Education, and the discussion and adoption of resolutions both numerous and explicit, sufficient, indeed, if added to the several annual reports, to make a fair sized octavo volume They will find also that the twenty years of discussions and resolves culminated, in 1866, in an earnest appeal to the medical colleges of the country to hold a delegated convention from their faculties, and agree upon a more thorough, systematic and extensive system of medical college education, which might be adopted by all the schools in concert

If they look carefully enough, they will find that in response to such appeal a very creditable college convention was held the following year in Cincinnati, presided over by that eminent scholar and professional teacher, Dr Alfred Stille, of the Medical Department of the University of Pennsylvania This convention, after a three days' session, agreed upon and recommended a system of medical college education, to be preceded by an adequate general education, as comprehensive, systematic and thorough as the most zealous of the critics of the present day would be willing to comply with This action was reported to the American Medical Association, then holding its annual meeting in the same city, and it received the prompt approval of that body (See Transactions, vol 18, page 28, 1867)

Two years later, May, 1869, another convention of delegates from medical colleges was held in Washington, presided over by no less a personage than the late Dr Samuel D Gross, of the Jefferson Medical College After a free discussion, that convention simply renewed the recommendations of the former one, and their action was again promptly endorsed by a vote of the Association, then in annual session in the same city These acts of the association, fully recommending the exaction of a fair standard of general education before commencing the study of medicine, and the study of medicine three years, embracing three consecutive graded courses of medical college instruction, with adequate hospital clinical facilities, still stand on the records unrepealed and unaltered by any subsequent action as the deliberate expression of opinion by that body It is true that only a moderate number of the medical colleges have adopted these recommendations But in this number are several of the oldest and most reliable colleges in this country

Many others, however, are making some progress in the same direction, and under the pressure of the strong public sentiment largely developed by the numerous able reports and discussions to which we have alluded, this progress will be accelerated from year to year And yet, so long as the college diploma is accepted as equivalent to a license to practice medicine and surgery, without a further and independent examination of the candidate, the temptation to make its acquirement easy and cheap as a means of increasing the number of students in any given college, will remain too strong to be successfully resisted Indeed, if all the respectable medical colleges at present existing in the United States were to adopt simultaneously the full curriculum recommended by the college conventions of 1867 and 1869, the general incorporation laws existing in most of the states would enable any half-dozen doctors to unite in effecting the organization of a medical college, with authority to confer degrees on as easy terms as they might choose What is most needed, therefore, at this time, is not mere general resolves that the standard of medical education should be elevated, but a harmonizing and concentration of the influence of the profession in favor of the establishment of reliable and independent tribunals for determining the qualifications of all who may ask for permission to practice the healing art in any of its departments

PAPERS FOR THE SECTIONS OF THE ASSOCIATION —In another place will be found the notice of Dr R S Sutton, of Pittsburgh, Pa , chairman of the Section of Obstetrics and Diseases of Women, requesting all those who intend to present a paper in that section at the coming meeting in New Orleans, to notify him without further delay

And we take this occasion again to remind all who may be intending to present papers in any of the sections, that the by-laws of the association make it their duty to notify either the chairman of the Section or the chairman of the Committee of Arrangements of the titles and contents of their papers at least thirty days before the time of the next meeting, which this year will be on the 28th day of April, 1885

COMMA-BACILLI AND CHOLERA —From the second report of the Special Cholera Commission in India, it is stated that Dr E Klein has found the true cholera bacilli of Dr Koch in tanks of water in India, which water was being freely used by large numbers of people, among whom no case of cholera had occurred If this statement is correct, it has a very important bearing upon the question whether these bacilli have any real etiological relations to cholera or not

NEW BUILDING FOR THE ARMY MEDICAL LIBRARY AND MUSEUM —The bill appropriating $200,000 for the erection of a fireproof building for the accommodation of this very valuable library and museum has passed the House of Representatives and will doubtless become a law before the close of the present Congress

SANITARY COUNCIL OF THE MISSISSIPPI VALLEY — The Seventh Annual Meeting of this organization will be held in New Orleans, commencing Tuesday March 10 at 11 A M The subject of Cholera and its prevention will engross a large part of the attention of the Council

CORRECTION —The name "F B Brown, of Baltimore," which appears in the list of permanent members of the Association as published in number 26 of the Journal, volume III, should have been T Barton Brune, of Baltimore, Md

GAILLARD'S MEDICAL JOURNAL —We are informed that the publication of this Journal will be continued by M E and E W Gaillard, with Dr P Brynberg Porter as editor and a number of able Collaborators

RESIGNATION —We notice with regret that Dr J E Reeves, of West Virginia, has been constrained to resign his office as Secretary of the State Board of Health of that state on account of ill health

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY.

At the meeting of February 16, 1885, Dr C E Webster read a report of a case of "Malignant Growth of the Thyroid Gland "

The patient was a woman about sixty years of age Her general health was quite good The enlargement in her neck was first noticed about one year before the first consultation It commenced in one lobe of the thyroid, and rapidly extended to the adjacent glands and tissues of the neck Rubbing with liniments appeared to relieve this swelling, but it never entirely disappeared, and at the time of first seeing the patient the gland had begun to enlarge again Swallowing was difficult and the voice was husky, although respiration was not impeded The thyroid gland, larynx, trachea, and neighboring cervical glands, formed an irregular, doughy mass In the diagnosis of this case, there were two possibilities to be considered—tertiary syphilis and cancer of the thyroid The history of progression of the disease from an enlargement of the thyroid, and the fact that such enlargements of this gland in people past middle life are almost invariably malignant, rendered the diagnosis easy A short course of specific treatment, and an observation of the steady progress of the disease, confirmed the early diagnosis The patient passed on to a gradual exacerbation of her difficulty, and recently died of exhaustion

The microscopic appearance of this growth is sometimes peculiar, hardly differing from that of a benign tumor of the same organ So that oftentimes in these cases a positive diagnosis is difficult from a microscopic examination alone The reader then recited an instance in the service of the Massachusetts General Hospital, where such a doubtful tumor proved itself to be malignant by its recurrence after excision. In this case the alveoli were lined with cuboid cells and filled with a homogeneous substance

Dr F Carey inquired, by referring to the case that occurred at the Massachusetts General Hospital, if the alveoli were filled with a homogeneous substance, where, then, were the cells situated?

Dr E J Doering asked, If removal of the gland by surgical procedure would have been justifiable in the author's case

Dr L H Montgomery inquired as to the dimensions of the growth of the tumor situated on the thyroid Also, did it appear to extend uniformly in various directions, and if the author had any idea as to the functions of the thyroid? Might not the thyroid be located for the purpose of protecting the trachea, or act as a sort of reservoir analogous to that of the spleen?

Dr Webster replied in substance as follows That the lumen of the alveoli were filled with a homogeneous substance and the cells were arranged peripherically, in the hospital case that he made mention of.

Regarding the case he presented in his report At the time of first consultation the disease had progressed to such a stage that it would have been impossible to perform an operation successfully, as the deep tissues of the neck, including the œsophagus, were involved in the growth The time for an operation, therefore, would have been at the time when the growth was first noticed The size of the growth on the thyroid was as large as a hen's egg or half a hen's egg, and it extended in various directions, so that the tissues of the neck felt like a doughy mass, although the submaxillary glands were not involved in it Regarding the functions of the thyroid gland he had no theory to offer It is a ductless gland, the same as some others throughout the human system

Tænia Solium in a Child Two Years of Age —Dr C G Davis read a report of a case of *tænia solium* occurring in a child two years old and exhibited about four inches of the worm, including the head.

He was first called to see the child December 10, last, when it had not entirely recovered from an attack of entero-colitis, which it suffered from throughout the summer and autumnal months The child still had, occasionally, the usual symptoms of cholera infantum, such as vomiting, indigestion, diarrhœal, discharges, etc Immediately the child was given a number of simple remedies, with raw beef This treatment seemed to act properly In a little while portions of tænia began to appear in the discharges

The child was then given a half-teaspoonful of the French prepared preparation Peletierin and followed in an hour with twenty drops of tr jalap and a tablespoonful of castor oil This was followed by the expulsion of three or four yards of the worm, but the head was *not found* The child was then carefully nursed and its general health looked after, when segments of the worm again appeared in the evacuations.

A double dose of the quantity of peletierin, tr jalap and castor oil, as above stated, was administered, when several (7 or 8 feet) more feet of the worm was dislodged, including the head, which he then exhibited to the society

Dr Doering stated that he had treated three children having tænia, one of which was 9 years old, another 4 years of age, and a baby that was but 6 months old The last case had been fed on raw beef whilst being sick with entero-colitis He was surprised to hear of Dr Davis' success with the remedies he had used, given in such small quantities, as he had himself practiced the same method of treatment and with larger doses of the peletierin, with but partial success only

Hygroma Linguæ —Under somewhat of a disadvantage Dr Josef Zeisler reported a congenital case of this rare disease, or bearing this title, which is under his care Said he It is a strange disease of the tongue that has occurred to Emma L , who is now about 9 years old She has suffered from the trouble since her birth The child is well nourished, but her complexion is pale Her face is asymmetrical to a considerable degree, and its formation is very incommensurable in a number of respects The right half of her face is much more developed in its muscular and osseous formation than its opposite side No swollen submaxillary or cervical glands are present Her tongue was described as having the following appearance It is much thickened, the surface appears to consist of small vesicles or cysts, varying in size from a pinhead to that of a pea, lying by the side of each other in the form of mosaic pieces of work, or in a tessellated shape These cysts seem to contain a colloid mass, and this condition affects the entire visible portion of the tongue, so that no intact mucous membrane can be seen Over the middle of the tongue there extends a kind of cockscomb or carunculated excrescence, or cristate in form, of the same appearance, but presenting a more papillary or warty resemblance These crists are also found on the mucous membrane of the right cheek near the angle of the mouth In handling or touching the tongue, the surface imparts a sensation as if it consisted of oil-globules or boiled sago The movements of the organ, as well as speech, are not impeded, nor is the sense of taste in the least impaired There are no spontaneous pains proceeding from it, and pain arises only when strong compression is made upon her tongue, or, as the child says, when acid substances are taken Relatives of the child report that its tongue was formerly much larger, although it sometimes now appears to become œdematous and then grow smaller again Her parents and her five brothers and sisters have always enjoyed good health and are in a healthy condition at the present time

The writer regards this disease from a pathological standpoint as a colloid degeneration of the mucous membrane of the tongue, but he could not classify it clinically, having never seen a similar case previously A microscopical examination was not permitted to be made of any of the cysts or their contents Galvanopuncture was suggested as a remedy, which was also declined Dr E Andrews, Dr C T Parkes, Dr J N Hyde, and several other well-known physicians had seen this case, but could add nothing further of interest relative to it, nor to the treatment They had neither of them seen a similar case Dr Doering had seen this patient two years ago The tongue then presented a "sago pudding" appearance, and he presumed it still retained the same features He further stated that only two cases thus far have been reported in literature It is probable that the child will be presented before the Society at a future meeting

Exhibition of the "Koch comma bacillus of Asiatic cholera," by Dr L L McArthur —The speaker addressed the Society orally, during which he stated that Koch had devoted more time and study to the solution of the cholera problem than any other physician, and from the fact that he has so far established his cholera theory over all opposing ones, and successfully met all arguments, no little interest in the subject is felt by the people of this country, inas much as cholera may cross the ocean during the coming summer The comma bacillus of Asiatic cholera is distinguished only when magnified about a thousand times (to 1,600 times) They can be taken into the stomach with water, and although very few may be swallowed, their power of reproduction is so wonderful that in a day the victim will be suffering the agonies of a fully developed case The disease, the speaker continued, is said to be the irritation in the stomach and alimentary tract caused by the presence of these *pests* The water in the blood is lost, and if the disease is not checked or arrested death ensues The germs pass from the victim and, by going through the sewers and down the rivers, cause the disease and death to the people living along the streams The germs may also be carried in the air, or in the clothing Moisture is an essential condition for their reproduction or life If they are placed in a warm, dry place, they will die in a few weeks' time Koch, in his experiments, carried this comma bacillus through forty cultivations or generations, and the last cultivation, introduced into the stomach of a dog, brought on cholera Asiatica, and death resulted in three days

The bacilli exhibited were received from Koch's laboratory but a few days ago, and were sent by Dr Odo Betz, from Tubingen, Germany, to Dr Doering, of this city, and are the first ever exhibited in Chicago

A number of the members participated in an informal discussion of cholera Asiatica and cholera nostra, and the specimens were closely examined

The Society then adjourned

LISTON H MONTGOMERY

STATE MEDICINE

WHEELING, W VA , Feb 5, 1885

TO HIS EXCELLENCY GOVERNOR JACKSON

Dear Sir The fear which I expressed to you many weeks ago, that I should not be able, because of my poor health, to continue in the service of the state to the end of my official term (1888), I find, to my inexpressible sorrow, fully realized much sooner than I had expected   I am, therefore, compelled to lay down the office with its honors which you conferred upon me in June, 1881, and beg that you will accept my resignation to take effect Monday, the 23d inst , at 12 o'clock M

Let me tell you truly that I can find no words to fitly express my regret that I am compelled to retire from the State Board of Health, for God knows how earnestly my whole heart has been engaged in the work

From the date of the organization of the Board to the present, my association with my colleagues has been a source of continued pleasure , and from Your Excellency I have received many kindnesses which greatly encouraged my labors, and for which I shall never forget to feel grateful   Indeed, I am under many and lasting obligations to the officers of each department of the state government for courteous acts

Finally, need I assure you of my continued interest in the cause of the public health ?—in the higher and higher standard of the medical profession within our borders ?—and in West Virginia's prominence in the cultivation of sanitary science ? All these are too near my heart to be neglected or forgotten

Believe me, Very truly yours,
JAMES E REEVES

STATE OF WEST VIRGINIA,
EXECUTIVE DEPARTMENT,
WHEELING, Feb 18, 1885

JAMES E REEVES, M D , SECRETARY STATE BOARD OF HEALTH, WHEELING, W VA

Dear Sir   I am in receipt of your communication, of date the 5th instant, requesting the acceptance of your resignation as a member of the State Board of Health, to take effect on Monday, the 23d instant, at 12 o'clock, M

I greatly regret that the condition of your health compels you take this step   You have been identified with the Board from its organization until the present time   Its objects have been not only, by investigation and proper action based thereon, to promote the public health, but also to elevate the standard of the medical profession in the state   To these objects I am aware you have devoted a large share of your valuable time, aided by a ripe experience in medical and sanitary science   Your labors, in conjunction with the other members of the Board, have raised the standard of the profession to a higher plane than before attained by it, and through the operation of our health laws placed the state on advanced ground in the development of sanitary science

I had hoped that your valuable services would have been continued, at least until the end of your term, and until this department of the state's service had become so firmly established as not to be endangered by the loss of so efficient an officer

In accepting your resignation, it is with the hope that your health may be speedily restored, and that you may from time to time, by your counsel, aid the Board in carrying forward the great work for which it was created, so that the objects which you have had so much at heart may be fully realized and result in lasting good to the people of West Virginia

With the highest regard, and my best wishes for your future health and happiness, I am

Very truly yours,
J B JACKSON

FOREIGN CORRESPONDENCE.

LONDON LETTER.

LONDON, Feb 1885

At a meeting, convened by the Vegetarian Society and held in Exeter Hall, the chairman said they had served 161,000 meals during the late International Health Exhibition, or an average of about 910 per day , after paying rent and all expenses they were in a position to return the guarantee fund subscribed by their friends in aid of the experiment, and there remained a balance of over £100, besides their crockery, tables and cooking utensils   The money balance, in accordance with the public undertaking of the Society, was being spent in vegetarian meals for the poor in several large towns   Miss Anna Kingsford, M D , protested against the representations of those who seemed to think that vegetarians wished to send men out like Nebuchadnezzar to graze, to make them eat cabbages in the morning and grass in the evening   She maintained, however, that men were classed anatomically and physiologically with the apes, whose teeth were not flesh-tearing teeth   The apes used their teeth for cracking nuts, and never for masticating mutton chops or eating saddle of mutton   Flesh-eaters were liable to many diseases from which vegetarians were free   She had cured herself of tubercular consumption by living on vegetable food   Having been told that she had not six months to live, and that she must eat raw meat and drink port wine, she had gone into the country and tried cold porridge and fruit, and was there that day on that platform   She had found the shoemaker to make her shoes without leather, and she assured her audience that they did equally well for the muddy streets of London and for climbing the hills of Switzerland

During the past month the annual treats have taken place at most of the metropolitan hospitals   A pathetically interesting scene was witnessed at King's College Hospital   The resident medical officers, with the aid of sisters, nurses, students and others, had designed an evening's entertainment for the patients   All the wards were pleasingly decorated and illuminated with Japanese lanterns   A Christmas tree was set up in the great hall, which itself was brilliantly illuminated and decorated   A stage was here erected for the purpose of an entertainment devised by the medical officers, and from the various staircase landings those patients who could bear removal from the wards watched with keen interest the performance below   Many of the sick people could only watch the entertainment in a recumbent position, and were carried on their mattresses to their places In the Wigram ward, which is tenanted by patients under surgical treatment, the spray producer was converted by a clever sister into the trunk of a diminutive Christmas tree and decorated with articles humorously suggestive of the names of medical officers Thus, three cards with the motto "Play fair" suggested the name of the eminent physician In the Twining ward, distinguished by decorations of twining ivy, a sorry wag of a student ornamented the gigantic dispensing mortar with the motto "De *mortuis* nil nisi bonum," and audaciously attached to the pestle a label inscribed "Pestle-lentia deorum est donum " The entertainment in the great hall included some amateur negro minstrelsy, and particular mention may be made of a topical song in the course of which there occurred a pathetic reference to the small public attention bestowed on King's College Hospital as compared with other public institutions of a like nature It is a free hospital, and last year over 2,000 patients were taken indoors, while nearly 28,000 persons were treated as out-patients

Dr Richie, Medical Officer for Leek, drew attention, the other evening, to what he designated a very startling fact Since the insurance of the lives of children had become common in that town, he said, the rate of mortality among infants under one year had increased from fifteen to a hundred and eighty six per thousand The deaths which formerly were, for children of the age referred to, fifteen in the thousand, had during the past seven years averaged a hundred and seventy Apart from the logic of facts familiar to all who move much among the most ignorant and brutalized section of our population, it would of course be incredible that the circumstance of a small sum of money depending on the life of a child could at all affect its safety in the hands of parents That such often is the case, however, there cannot be a doubt, and statistics of any center of population in which infant insurance largely prevails—and it is very much a matter of local custom—would probably put the practice in a light which cannot but suggest the question whether parents should be permitted to realize what must often appear to be a considerable accession of wealth by the death of their children

There has been a sharp discussion in the *Times* during the last month or so on the subject of brain surgery, and there has been a good deal of acrimonious dispute as to which "school" is entitled to the distinction of having commenced such operations, although any credit attaching to the experiments is considerably diminished by the somewhat important detail that the patients whose cases have been reported appear to have all died The real fact is that neither Dr Ferrier, nor any other practitioner of the present day, ought to clamor for applause, as operations of this kind were conducted by Sir Astley Cooper more than fifty years ago If anyone turns to his "Lectures on Surgery," accounts will be discovered of operations on the skull and brain which are quite as remarkable as any recently reported, and even more so, for chloroform was not then in existence, and some, at least, of Sir Astley Cooper's patients appear to have recovered He experimented on the brain of a dog before meddling with human beings, it is not, therefore, clear why the practitioners of to day should have deemed it necessary to torture dogs A paragraph in the report prepared by the India office upon the sanitary measures adopted in India during the year 1882–83 will cause some surprise to those who have hitherto imagined that life in our eastern possessions is very often synonymous with death ‘ The sanitary progress in British regiments has overtaken that of native corps in their own country " This means that the difference between the rates of sickness and mortality between European and native soldiers is *nil*, and that the matter is altogether dependent upon the adoption of those sanitary laws which modern science has pointed out to be necessary

Dr Buckhill's article on proprietary Madhouses is by no means pleasant reading In England and Wales there are 96 private asylums, more than half of which are owned by women and people other than doctors, who of course carry on a trade in lunatics as they would in any other marketable commodity Among the reprehensible practices which Dr Buckhill cites, the most objectionable is perhaps the custom of payment by the owners of asylums to doctors and others who send them patients The customary fee is 20 per cent , and though the practice has been forbidden by the Lunacy Commissioners, Dr Buckhill asserts it to be still widely prevalent Another abuse is the letting out of keepers, on the terms that the keeper pays half, or at any rate a large proportion, of his wages to the owner of the asylum The result of this is, that in many asylums there are more keepers than patients If quiet and harmless lunatics were to be discharged from confinement,—and it has been frequently decided that such people ought not to be shut up,—the doctor considers that many asylums would be at once all but emptied The abuses of the private madhouse system are, in fact, so numerous that the efficient way of dealing with them would be to order their entire abolition

G O M

BERLIN LETTER

BERLIN, Jan 10, 1885

PROF DR SCHROEDER'S KLINIK STAFF

1 Dr Hofmeier Privatdocent, chief assistant, in charge of poliklinik and of private patients

2 Dr Winter Obstetrical poliklinik (outdoor), which numbers about 1,500 cases per year

3 Dr Bokelmann Gynecological ward, about 40 beds

4 Dr Stratz House obstetrical ward, about 60 beds

5 Dr Cohn Septic carcinomatous and puerperal fever wards, also in charge of microscopic examinations

6 Dr Ruge Assistant to Dr Cohn in microscopical work There are three volunteer doctors who live in the hospital, and whose term of service is as follows 2 months in obstetrical ward, 2 months in gynecological ward, and 2 months in Dr Cohn's ward Eight practitioners or older students attend

the labors of poor people in the city, and if operative interference is necessary they report to Dr Winter Both Dr Hofmeier and Dr Winter have student courses

NORMAL AND PATHOLOGICAL ANATOMY—FERIENCURSE

March 16 to end of April, 1885

1 Dr Jurgens (*a*) Fee, 60 marks Lasts six weeks Held at Pathological Institute Charité Pathological anatomy, with section-cutting, Monday, Wednesday and Saturday, 8–10 (*b*) Fee, 100 marks Normal and pathological anatomy and histology of brain and spinal cord

2 Dr Grawitz Fee, 40 marks Lasts five weeks In Pathological Institute Charite Practical course on pathological histology, Tuesday, Thursday and Friday, 8–10

3 Dr Weinicke (*a*) Fee, 40 marks Eight weeks 5 Dorotheen str Anatomy of brain and spinal cord, with demonstrations, Tuesday, Thursday and Saturday, 5–6

4 Dr P Guttmann Fee, 30 marks Lasts four weeks Hospital Moabit Pathological anatomy, with demonstrations

5 Dr Brœsike (*a*) Fee, 40 marks Lasts six weeks Anatomical Institute Normal anatomy, with demonstrations, every day, two hours (*b*) Normal anatomy of viscera

6 Dr Rabl Ruckhardt Fee, 30 marks Lasts six weeks Normal histology, Monday, Tuesday, Wednesday and Saturday, 8–10

7 Dr Israel Fee, 30 marks Pathological Institute Charité Normal histology

8 Dr M Wolff Fee, 30 marks 5 Dorotheen str Lasts eight weeks Examinations for bacteria, Monday and Thursday, 2–4

9 Dr Mendel Fee, 40 marks 27 Carl str Anatomy and pathology of the brain and spinal cord, Wednesday and Saturday, 6–7½

PRACTICE OF MEDICINE—FEREIN CURSUS

1 Dr A Fränkel Fee, 30 marks Charité room 7 Lasts five weeks Clinical medicine, ascultation and percussion, Monday, Thursday and Friday, 11–12½

2 Dr Litten Fee, 30 marks Augusta Hospital or 27 Carl str Lasts six weeks Clinical medicine, auscultation and percussion, 11–1 and 12–2

3 Dr P Guttmann Fee, 30 marks Lasts four weeks Hospital Moabit Clinical medicine, diagnosis, visits in wards of hospital, Monday, Tuesday, Thursday and Friday, 9½–11

4 Dr Riess Fee, 30 marks Lasts eight weeks Hospital Friedrichshain Diagnosis, Wednesday and Saturday, 11–12½

5 Dr Zuelzer Fee, 40 marks 6 Leipziger platz Examinations of urine, pathology of the kidney and bladder, Sunday, Monday, Tuesday, Thursday, Friday and Saturday, 10–11

6 Dr Lazarus Fee, 20 marks Jewish Hospital, 15 August str Therapeutics of pulmonary disease, Tuesday, Thursday and Friday, 2–3, with special reference to pneumatics

7 Dr Lewinski Fee, 30 marks 5 Dorotheen str Lasts nine weeks Auscultation and percussion, method of examinations, Monday, Wednesday and Saturday, 11–12

8 Dr Lublinski Fee, 30 marks 5 Dorotheen str Lasts six weeks Pathology and therapeutics of the nose, larynx and pharynx, with practical examinations, Tuesday and Friday, 10–11, Saturday, 11–12

9 Dr A Baginsky Fee, 30 marks 3 Johannis str Lasts five weeks Children's diseases, Monday, Wednesday and Friday, 1–2 Poliklinik

10 San Rath Dr Ehrenhaus Fee, 20 marks 40 Lothringer str Lasts five weeks Pathology and treatment of diseases of children Poliklinik

11 Dr E Grunmach Fee, 30 marks 5 Dorotheen str Lasts six weeks Auscultation and percussion, Monday, Wednesday and Saturday, 2–3 (*b*) Diseases of respiration and circulation (fee, 20 marks), Tuesday and Friday, 2–3

12 Dr Ewald Fee, 30 marks, 31a Potsdamer str Diseases of the digestive organs, Tuesday, Thursday and Friday, 10–11

13 Dr B Baginsky Fee, 30 marks 24 Markgrafen str Laryngoscopy and rhinoscopy, three times a week, 6–7

NERVOUS DISEASES AND ELECTRO-THERAPY

1 Dr M Bernhardt Fee, 30 marks 58 Markgrafen str Lasts five weeks Electro diagnosis and therapy, Tuesday, Friday and Saturday, 6–7

2 Dr Remak Fee, 30 marks 40 Mauer str Lasts five weeks Electro diagnosis and electro-therapy, with clinical demonstrations, Tuesday, Thursday and Saturday, 6–7

3 Dr Weinicke Fee, 30 marks 5 Dorotheen str Diseases of the nervous system, Monday, Wednesday and Friday

4 Dr Eulenburg Fee, 30 marks 27 Carl str Lasts five weeks Electro-therapy and neuropathological diagnosis, Monday, Wednesday and Saturday, 3½–4½

5 Dr Oppenheim Fee, 30 marks Charite Last six weeks Diseases of the nervous system and electro-diagnosis, Tuesday, Thursday and Sunday, 9–10

SURGERY

1 Dr Hahn Fee, 40 marks Hospital Friedrichshain Lasts twelve weeks Clinical surgery, Wednesday and Saturday, 8–11 Operations, Sunday, 8–10

2 Dr Hans Schmidt (*a*) Fee, 30 marks Augusta Hospital Lasts five weeks Surgical treatment and after treatment, Wednesday and Saturday, 3½–5 (*b*) Fee, 30 marks Surgical examinations, Monday and Thursday, 6–7

3 Dr Busch Fee, 30 marks 40 Dorotheen str Diseases of the teeth One month

EYE DISEASES

1 Dr J Hirschberg Fee, 40 marks 36 Karl str Lasts ten weeks Practical course, with clinical demonstrations, three times a week, 12–1

2 Dr Horstmann Fee, 30 marks 6 Potsdamer str Ophthalmoscopy and refraction, etc, Monday, Wednesday and Friday, 5–6

DISEASES OF THE EAR

2 Dr Schwabach Fee, 30 marks Koniggraratzer str 42 Clinical course, with examinations in catheterismus of the Eustachian tube, Monday, Wed , Friday, 6–7

2 Dr L Jacobson Fee, 40 marks 5–9 Ziegel str Lasts six weeks Practical course, with demonstrations

3 Dr B Baginsky Fee, 30 marks 34 Markgrafen str Diseases of the nose

GYNÆCOLOGY

1 Dr A Martin (*a*) Fee, 60 marks 85 Elsasser str Examinations and operative demonstrations, 12–3, operations from 7–9 and 11–12 (*b*) Fee, 75 marks Gynecological operations, 7–9 evenings (Schulze-Winckel phantom)

2 Dr Landau Fee, 40 marks 40 Lothringer str Demonstrations and examinations, Tuesday and Saturday, 11–1

3 Dr H Lohlein Fee, 40 marks 40 Tauben str Diagnosis

4 Dr Hofmeier Fee, 40 marks 14–16 Artillerie str Diagnosis, daily, 12–1

5 Dr Veit Fee, 40 marks 16 Steinmetz str Diagnosis, Monday, Wednesday and Friday, 10–11

6 Dr Wyder (*a*) Fee, 40 marks Charité, Obstetrical operations, with demonstrations from poliklinik, daily, 8–9 (*b*) Fee, 50 marks Gynecological operations, daily, 3–4½

DERMATOLOGY AND SYPHILIS

1 Dr G Lewin Fee, 30 marks Charité, Syphilis, etc , Wednesday and Saturday, 10–11

2 Dr Lassar Fee, 30 marks 19 Karl str Skin

3 Dr Zuelzer Fee, 20 marks 6 Leipziger platz Skin

4 Dr Behrend Fee, 30 marks 27 Elsasser str Skin

5 Dr Kobner Fee, 30 marks 111 Friedrich str Skin and syphilis

I have compiled this table with some care, for the benefit of those who contemplate a trip to Europe during the spring As it gives fees, localities and hours, it will prove a useful guide I have read with some interest the address of Mr Lawson Tait upon his return to Birmingham I have been also somewhat amused at the desperate glee with which he snatches at the straw thrown out by the "eminent surgeon of thirty years' standing and enormous clinical experience" in relation to listerism Some pretty good surgical work is being done all the time in Germany The amount of material is very large and very varied The number of abdominal sections made is also large The results here are good, although much of the work is done in a *general* operating room, and before a whole class of students Many have come from pathological and anatomical work, some possibly from infected wards Now it is a self evident fact that such results could not possibly obtain under any other conditions than those of full listerism, bichloride of mercury and iodoform If it is quackery, it is the mightiest discovery for the weal of suffering humanity that has characterized surgery for many a year—and if it is quackery, they who practice it must be quacks—and the following is a right royal and mighty one Fortunately for surgery, the opinion of the minority does not weigh in the balance, and fortunately for German surgery, much of which is done under the most unfavorable conditions, strict antisepsis is still the rule The Germans have given us the best pathology in the world, and as a thinking people their practice is based largely upon this Tait's treatment of uterine tumors has not a very firm hold upon German practice The operation is quite as difficult and quite as dangerous as a myomotomy, and the results are not as good nor as permanent Dr Veit is using sheep-gut ligatures soaked in carbolized solution and hardened in alcohol I have seen him do some plastic work lately—an Emmet and a ruptured perineum—in which he used the gut and the continuous stitch The operations were done quickly and with great neatness Dr Veit is already in the very foremost ranks of German gynecologists, although still a young man, and his private practice is about as large as that of any specialist here, except, perhaps, Dr Schroeder But what is called an Emmet's operation here is not a true Emmet, it is more a partial amputation They remove first quite a large piece of the anterior lip, and then of the posterior The edges of the anterior incision are brought together by sutures, before the posterior part is snipped off I have not yet seen a "paring" of the edges of a laceration, and the bringing of the flaps together with a suture through the anterior and posterior lip at the same, as we are accustomed to do it a home Dr Veit's perineo plastic work is very pretty and quickly done

H R B

DOMESTIC CORRESPONDENCE

PHILADELPHIA LETTER

PHILADELPHIA, Feb 17, 1885

MR EDITOR

We may expect shortly again to be in the agonies of a canvass for a professorship, Prof Mallet, but recently elected to the chair of chemistry in Jefferson, having resigned At this rate, the trustees of that institution will greatly enjoy their position, and perhaps they may come to the conclusion that for a time at least "honors are not easy" Thus far, the only candidates who have appeared being Philadelphians, the canvass may be regarded as not yet begun, inasmuch as no citizens of this metropolis need apply We would respectfully request the chemists from afar off to put in their applications

The winter medically has been quiet Very little practice, nothing of special interest in our societies But hold! we forget, our county society has been holding a series of meetings for the discussion of an Act to create a Board of Examiners and Licensers of medical men The debate was earnest, even acrimonious at times, and to an outsider there were many curious features One school was well represented and fought bravely on one side, another school was equally earnest in opposition, while yet other schools appeared so little interested that their faculties were only conspicuous by their absence Slowly the meetings dwindled down, until at the last a handful of members went through the form of voting, and as far as can be judged, the matter now seems to have quieted down As the whole subject is to come up in the form of a report to our State Medical Society next May, we may look for a renewal of the effort about that time

We have just been treated to our share of horrors, in the burning of a portion of our Almshouse, the Insane Department About twenty of the poor insane were thus put to death It looks just now as if each department of our city government were trying to hoist from its shoulders the onus of the deed Knowing well the calibre of several of the Board of Guardians, we shall be greatly surprised if they do not put the responsibility where it belongs One good will result already the fearful overcrowding, the absence of proper watchmen to guard against just such a calamity, and a host of other evils have been shown, and our city fathers will have the opportunity given them to provide better quarters It is proposed, as soon as can be done, to separate the almshouse proper with its hordes of able bodied paupers from the indigent sick or insane This will be a just arrangement, for hitherto it has frequently occurred that the worthy sick have refused to accept a bed in this hospital because it was the "Poorhouse"

From the present outlook, it appears as though, after much hard work for the last ten years, we are to have a State Board of Health The people now seem to have been educated to a knowledge of the value of such a body, and are aiding the profession in their efforts to that end A committee of our State Medical Society met the Judiciary Committee of our Legislature last week, and gave these lawmakers their views on the subject Now, if the bill passes, and the composition of the Board can be kept out of the hands of politicians, the old Keystone State will at last be able to present herself *in the line* as prepared to prevent disease, or to speedily stamp it out, should it make its appearance

We have a new candidate for medical preference, in the shape of the Medical Journal which Messrs Parke, Davis & Co have transplanted from Detroit It presents a neat appearance, and as its backers have plenty of money and are very determined in what they undertake, it is probable that the new Journal may continue with us awhile We predict, however, that certain changes may become imperative, but as we do not desire to pose as a prophet, we shall merely say, "told you so," when these occur in the near future We have now the Medical News, Messrs Lea's organ, the Medical and Surgical Reporter, the Medical Times, the organ of J B Lippincott & Co, the Medical Bulletin, which is of the firm of F A Davis & Co, the College and Clinical Record, which is devoted to the interest of the Alumni of Jefferson, and is expressly announced as *not* the organ of that school, the Polyclinic, which is edited in the interests of the institution of that name, and the Medical World There may be a few more, but as they do not burden our table, we are unable to quote them

In order to prepare the common people for our possible visitor next summer, our societies and at least one of our colleges have been kindly circulating postal cards, asking the profession to call and view, gratis, a specimen of the "comma bacillus," or "cholera bacillus" I believe that great care has been taken by Prof Koch, from whom each of these little gentlemen has been received, hence they are real, simon pure, to cage the animal so securely that he cannot get loose, and we are reasonably secure against the importation of the pest by this avenue It is an excellent idea, and soon we shall find our gamins selling small microscopes at the street corners by which each may inspect for himself and be able at once to detect its earliest arrival

We are rapidly approaching our spring delivery, and we look for the usual outpour of doctors, dentists and pharmacists We cannot speak too strongly our praise of our School of Pharmacy For many years it has stood as the educator of our apothecaries, and has been the means of doing a world of good As long as we pour out M D's so illy prepared, let us endeavor to prevent a portion of evil by furnishing pharmacists skilled to make their crude efforts at least harmless to the unfortunates who recklessly employ the "new young doctor," because he is cheap It has often been said that as the stream cannot rise above its source, so the medical profession will improve in ability, as is the demand by the people for educated physicians The people prefer cheap goods and they get them They demand humbugs, and the supply equals the demand Apropos of this, "Monsieur Tonson, come again" Diploma Buchanan is once more in the courts and diplomas are for sale Nothing is so easy to check as this When the German government took hold of the matter, and after investigating it through our valuable Consul, Mr White, and their own Barons, Theilman and Schlotzer, it was finally required that a diploma, to be useful in the Prussian Empire, must be attested by the American Medical Association, through its Permanent Secretary Why should not this plan be followed by all foreign governments? No bought diploma, nor one emanating from a bogus college, could prove of value to its possessor save in our own free land As we cannot have a general law in America, the only hope is the plan pursued by Illinois, and then the gradual dying out of the brood of bogus doctors may some day give the name of medical doctor its proper high position Yours, PHILADELPHIA

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419 Penn Avenue,
Pittsburgh, Pa, Feb 23, 1885

Dr N S Davis, Editor

Dear Sir Please insert the following card as soon as convenient Gentlemen desiring to read papers before the Obstetrical Section at the next meeting of the Association at New Orleans will please send in the subjects of their papers, as there is room left for only a few more

Very respectfully yours,

R S Sutton,
Chairman of Obstet Section

NECROLOGY

New York Polyclinic, Feb 21, 1885

N S Davis, M D , Editor Journal of the American Medical Association

Dear Doctor At a meeting of the members of the medical profession attending the New York Polyclinic, the following resolutions were this day unanimously adopted

Whereas, In the inscrutable providence of God, Professor Louis Elsberg has been removed from this life,

Resolved, That in his death science has lost an earnest and indefatigable student, the medical profession an honorable member and widely known teacher, and society one with broad and humanitarian sympathies

Resolved, That we offer to his family assurances of sympathy, and, as a testimony of our regard for his character and attainments and a sense of our personal loss in his death, that we, the members of the class of the New York Polyclinic, attend the funeral in a body

Resolved, That copies of these resolutions be sent to his family, to the Faculty of the Polyclinic, and to the medical press *of the country*

Eugene L Tridenberg, M D ,
J T Herrick, M D ,
W T Gott, M D ,
Jno C Berry, M D
M T Moore, M D , Chairman
Committee on Resolutions

Fraternally,
Moses T Runnels, M D , *Secretary*

MISCELLANEOUS

Nashville, Tenn , Feb 21, 1885

The fifty-second annual meeting of the Medical Society of the State of Tennessee will be held at Nashville, commencing the second Tuesday in April, and will be in session three days, April 14, 15 and 16 The Society will be called to order on the 14th, at 12 M , in the State Capitol

The members are reminded that at the last meeting of the Society the initiation fee was fixed at $5, the assessment on members in attendance, $2 , for those not present, entitling them to the transactions, $1

The volunteer plan in regard to papers succeeded so well last year, that it is hoped the members will show the same interest in the welfare and progress of the profession in Tennessee, and come prepared with papers and reports of cases of interest Those contemplating presenting papers are requested to notify the secretary at an early day

The American Medical Association meets in New Orleans April 28, and members of the profession who desire to attend that should attend this meeting, so as to be appointed delegates The last meeting of the Society was the most successful ever held in the fifty-two years of its existence, and this one promises to be equally so The railroads have granted special rates, and some valuable essays and committee reports have been promised

C C Fite, *Secretary*

The Louisville & Nashville railroad will sell round trip tickets at 4 cents a mile on the 13th and 14th, good to return until the 18th The tickets can be bought at all stations in Tennessee

The Nashville, Chattanooga & St Louis railroad will sell round trip tickets at 4 cents a mile on the 12th, 13th and 14th, good to return until the 18th The tickets will be sold from the following stations only

Chattanooga, Wauhatchie, Whitesides, Shellmound, Bridgeport, Stevenson, Sherwood, Cowan, Decherd, Winchester, Huntland, Fayetteville, Estell Springs, Tullahoma, Manchester, Morrison, Smartts, McMinnville, Rock Island, Sparta, Wartrace, Shelbyville, Belle Buckle, Fosterville, Murfreesboro, Lebanon, Silver Springs, Kingston Springs, Dickson, McEwen, Waverly, Johnsonville, Camden, Huntington, McKenzie, Dresden, Martin, Paducah Junction, Union City

The East Tennessee, Virginia & Georgia railroad will sell round trip tickets at 4 cents a mile on the 12th, 13th and 14th, good to return until the 18th

N B —The railroads will not recognize certificates for return passage, so these round trip tickets should be secured in all cases, *and bought during the business hours of the day*

The granting of these special rates is a courtesy shown by the railroad managements to the Society, and their rules should be cheerfully complied with

SANITARY COUNCIL.

The Executive Committee of the Sanitary Council of the Mississippi Valley has fixed the date of the seventh annual meeting of the Council for Tuesday, March 10, prox , and in the city of New Orleans This is about a month earlier than its meetings are usually held, and the Committee assigns as a reason for the change the probability of Asiatic cholera appearing in the country, and the uncertainty concerning National legislation on public health matters Invitations are extended to all state and local health authorities in the Valley, and to representatives of commercial and transportation interests

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, United States Army, from February 14, 1885, to February 20, 1885

Patzki, Julius H , Captain and Assistant Surgeon, leave of absence further extended seven months on surgeon's certificate of disability (S O 40, A G O , February 17, 1885)

Perley, L O , Captain and Assistant Surgeon, granted leave of absence for one month, to take effect about March 5, 1885 *(S O 16, Department of Dakota, February 10, 1885)*

Robinson, S Q , Captain and Assistant Surgeon, relieved from duty at St Spokane, W T , and ordered for duty as Post Surgeon, Fort Klamath, Oregon (S O 23, Department of Colorado, February 9, 1885)

Kean, J R , First Lieutenant and Assistant Surgeon (recently appointed), assigned to duty at Fort Sill, Indian Territory (S O 23, Department of Missouri, February 11, 1885)

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Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

VOL IV CHICAGO, MARCH 7, 1885 NO 10

ORIGINAL ARTICLES

THE RELATION OF THE LITERARY TO THE MEDICAL COLLEGES

BY E T NELSON, PH D, PROFESSOR OF PHYSIOLOGY AND GEOLOGY, OHIO WESLEYAN UNIVERSITY, DELAWARE, OHIO

A paper read before the Second Annual Meeting of the Ohio State Sanitary Association, held at Columbus, February 5 and 6, 1885

MR PRESIDENT AND GENTLEMEN OF THE ASSOCIATION

There lies upon my study-table a report, by the Illinois State Board of Health, entitled "Medical Education in the United States and in Canada"

Though not primarily intended for non-professional readers, it is a work whose pages I have turned a great many times during the past two years

With a peculiar pleasure have I glanced at the names of the one hundred and thirty existing medical colleges in these two English-speaking and otherwise closely-united countries

I have examined with great care their requirements and courses of study, have noted their list of matriculates, the states from which their patronage has been most largely drawn, and have calculated the ratio of graduates to the total number enrolled

With no less zeal have I attempted to subdivide my sympathy over the eighty-eight institutions which have been, but are not For many of these colleges I sorrow as those who have no hope They are dead, and that is the only thing that can be said about them

Others never had any life, save in the mind of some Buchanan or other as notorious victimizer of his race

Many of these institutions, however, have had a history at once honorable to all concerned They have merely lost their personal identity through consolidation, or have yielded to the inevitable ebb and flow of society

Very naturally, the institutions of our own commonwealth have claimed more than their full share of attention

In the total number of medical colleges and in the number of first-class funerals, the record of this state has been surpassed only by that of New York Twenty-four medical colleges have been born in Ohio Ten died in unconscious infancy, while fourteen remain the objects of a layman's anxious solicitude

I am profoundly thankful that no State Board of Health (or of Lunacy) has ever found it necessary to write up the literary institutions of Ohio Their record would be still more fatal to state pride and state honor In numbers we have not been willing to be second even to New York In quality we range from that nameless university which had, according to a late report by the Commissioner of Education, two professors, three students, and a library of one hundred and twenty-seven volumes—I say we range from this nameless university all the way up to those noble institutions whose professors and alumni are represented upon this programme and in the offices of this association

Until recently there has been but little connection of any kind between the literary and the medical colleges of Ohio In some instances there has been a seeming antagonism, in others, a spirit of mutual *indifference* In no case have the academic and the professional been regarded as concurrent factors in a single educational system To be sure, several of our leading universities have their medical departments, but, as I rejoice to learn, the latter are almost as free and untrammeled as where no such organic union exists

Moreover, such a union, desirable as it is in very many respects, is found to be one of convenience rather than of necessity It undoubtedly ensures a somewhat better utilization of the teaching force, and thus is to be commended on the score of economy

By associating the two in the minds of the students from the very commencement of their preparatory studies, there may be a somewhat increased attendance, especially at the Medical College, but it still remains that the two schools must preserve their individuality and carry on their work separately

It is, however, not a question of *organic* union that has led me to select this topic If I felt qualified to discuss so important a matter I certainly am not authorized to make any overtures on the part of the literary institutions Nor is this association prepared to receive them on behalf of the medical colleges, if tendered

The relation between the literary and the medical colleges, if you please, between the academic and the medical men of our commonwealth which I advocate, is rather one of comity, co-operation and goodwill—a pooling of mutual interests in order

1st That the standard of education, general as well as professional, may be elevated

2d That a much larger number of college graduates may be drawn into this vocation of medicine

3d That scientific and rational instruction in physiology and hygiene may be given to the pupils in the universities, academies and high schools of our state

4th That, as a result of these reforms, the principles of hygienic and sanitary science may be made known to the entire citizenship of our beautiful commonwealth

The time, given to me by the kindness of your committee, will not permit of more than a brief unfolding of this subject, in the four subdivisions just indicated

I Such a union would elevate the standard of education

Some months ago, I received a letter from a warm personal friend—himself a member of the Illinois State Board of Health—and the one to whom was committed much of the labor of compiling their report, though his name does not so appear From him I obtained, as it were, an inside view of these matters and gleaned certain facts not discoverable in the published report, at least not without much study and very careful comparisons

In the prosecution of their work they have found it necessary to adopt a schedule by which to grade the medical institutions of the country According to that standard there are, in the United States, ten first-class medical colleges A list of these accompanies the letter

As I am not here this afternoon to advertise any one special institution over another, it is certainly sufficient, for the purpose now in hand, to state that not one of these colleges is located within the borders of our own commonwealth

I am well aware that it is the prevailing fashion to decry the educational institutions of Ohio, and the universities and academies far more than the professional schools There is a deep-seated prejudice against a system that has authorized the founding of institutions which are necessarily rivals from the start, or which have so insufficient an endorsement as to preclude the possibility of their doing true educational work No one can be a student in a New England University, for a single week, without hearing of the "Fresh-water" colleges of Ohio, just as if an institution of learning must breathe the salt air daily in order to possess the true aroma of culture

In a late number of the *Independent*, while admitting many of the evils spoken of, I have attempted to show that the multiplication of colleges has carried the means of obtaining, at the least, a fair education into scores of communities and into thousands of homes where otherwise ignorance and vice would have prevailed An examination of college catalogues proves that the local attendance at any of our institutions of learning is out of all proportion to the population At one university, eighty-four out of ninety students are recorded as coming from the county in which the institution is located At a second, 155 out of 340, at a third, 162 out of 783 The largest number of students leaving any county in the state, to attend colleges located elsewhere, is probably less than *fifty* This argument is no less true for a medical college than for a literary one

Granting that we are not half so bad as we seem to others, let us, nevertheless, examine in a candid spirit the grounds of these criticisms, and thus ascertain, if possible, why the medical colleges of Ohio, in which we justly take so much pride, are not crowned with the same honors by our friends in other states

With the exception of a slight criticism as to the length of the college year, and a severe one as to the number of years in the medical course, the trouble lies wholly at the threshold Not a few of the institutions in the so called first class have so elevated the standard for admission as to make a preliminary training in some good classical and scientific school an absolute necessity

In one instance an examination is required in the following branches of study, except in the case of those students who bring evidence of still higher attainments The essentials of an English education, including composition and writing from dictation, algebra, arithmetic, including the metric system, and geometry as an elective Latin, including translation of easy Latin at sight, German or French, with special credits for both, physics, chemistry and botany, at the option of the candidate

At another college special honors are paid to the literary side of the student's preparation by waving all examination, in the case of those who have successfully passed the classical entrance into one of the great Eastern universities, Harvard, Yale, Princeton, or the University of Pennsylvania As this classical entrance examination is almost equivalent to that demanded for the "B A" degree in a number of institutions that I could name, some of which, unfortunately, are located in Ohio, you will observe that very advanced ground has been taken *

It is very evident that the trend of the times is in favor of a higher and more complete preparation for the medical calling

By how much do I anticipate this trend when I plant myself firmly upon the platform of requiring a diploma from some recognized university or scientific school as the *sine qua non* for entrance into the future medical college of Ohio and of the country? As we shall all step upon that platform in twenty years, if we live, why waste two decades in getting ready to move

Nothing less than this is in keeping with the dignity of the profession or in harmony with the severe studies in its curriculum Pardon a personal reference It has fallen to my lot to pay some attention to the sub science of physiology I have now progressed sufficiently in my studies to recognize the entire boundlessness of this field for research In the prosecution of my studies I recall and employ

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* Several of our State Boards have insisted upon requirements *no less* severe

Many of our medical colleges are advocating a standard which is quite satisfactory as witness the following

The general demand for a good preliminary education of those about to enter our profession is shown by the recent utterances of the American Medical Association and the enactments of several State Boards of Health We desire to call especial attention to the fact that in several States the diplomas of such schools as do not require an examination preliminary to entrance, are not accepted as qualifying for practice a somewhat protracted training in mathematics taken in an Eastern university and then fail for lack of additional knowledge in this department. In mechanics and in physics I have already been compelled to go beyond the point my teachers left me twenty years ago. In all that pertains to the brain, including the mental and the moral elements of the mind, I have not had sufficient training to confidently take a single step alone. In short, I have early discovered that to be a teacher of physiology requires more preparation, at least in certain lines, than is given to the undergraduate in any American university. You will pardon me, I trust, for adding that a practitioner of medicine must understand physiology. In all this I have taken no note of those studies usually called disciplinary, if such there be in a college course, nor of their reflex influence in training the mind for severe and protracted investigations, but only of those sciences and subjects whose principles are directly employed in physiological research. Were my time unlimited this afternoon, the argument could be made much stronger by discussing the influence of academic training in general upon habits of thought and powers of discrimination, but I forbear.

I have referred at some length to the science of physiology, not because it is the *most* important study in a course of medicine, but because it happens to be the only one with which I am at all familiar. What is true for physiology, however, must be true for "therapeutics," for "theory and practice,"—indeed for all the studies in the medical curriculum.

A single example proves the rule.

The theological seminaries of our country have already been compelled by public sentiment to meet this problem of academic *versus* professional training, and have solved it (at least, so it seems to me) in a very wise and happy manner.

Having arranged a scheme of study, extending over perhaps three years, they admit to its privileges two classes of students.

1st. Young men who have not had the advantages of a full collegiate training. They are admitted freely to the several courses of study, are examined upon the same from time to time, and, on completing the required work in all the departments, receive a certificate to that effect.

Although, in a sense, licensed to practice preaching, they are *not* graduates, have no voice in alumnal meetings, nor in the election of alumnal trustees. On the other hand, young men bearing a diploma and a degree from some university or college, receive, on completing the same course of study, and after passing the same examination, the degree of Bachelor in Divinity. They constitute the body of alumni and are recognized as such throughout the church.

The good results of this advanced step are seen at a glance.

The future clergymen are taught that, no matter how it may have been in the times of their fathers, the present age is demanding a cultured ministry.

The theological seminaries have received a greatly increased attendance, while at the same time scores of young men have been sent to college who otherwise would have been satisfied with a common English education.

An important difficulty must have already suggested itself to our minds. While, legally, anybody can preach, it is not so with the practice of medicine. The only door to the profession is through the medical college—the "open sesame," a degree. The laws do not and cannot allow of distinctions in the preparation. They may specify a minimum, but are unable to rightly honor a maximum preparation. That must await the enlightened action of some medical faculty. Before many moons have come and gone some institution of medicine will plant itself upon this platform, and though at first the attendance and revenues may be somewhat diminished, it will in the end prove the most popular step ever taken in our educational history.

May God speed the day, and also grant that it fall to the lot of some Ohio college to lead the van.

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Certainly if the medical schools should be closed to all persons except those wearing literary degrees as I have suggested, but no less certainly, if through these increased requirements all future disciples of Æsculapius have the importance of a well-rounded culture impressed upon their minds. I have taken the trouble to examine, upon this point, the records of the inststution, with which I am connected.

Out of the first five hundred graduates, thirty, or exactly six per cent, entered upon the medical profession. From the ranks of the next two hundred, nine per cent became physicians. Of the next hundred, twelve per cent, while from a recent class of thirty members no less than eight selected medicine, seven of whom have already entered upon its practice. I hear a like favorable report from other universities in the state.

It would, however, not be safe to conclude that there is a sudden stampede toward the medical profession, or that anyone is attempting to "bear" this market.

The enrollment in the several medical schools of the state, save when affected by the hard times, shows a healthy growth without any spasmodic increase in numbers. For this reason the interest in medical training found in our universities is one of the cheering signs of the times, and one which, if reciprocated by our medical friends, will soon force to speedy solution the question of entrance requirements.

The almost phenomenal success of university graduates, while pursuing medical studies, is having a very marked influence, and in the right direction. The honors and prizes obtained by these graduates of our literary institutions are out of all proportion to their numbers. When, from a single class in an Ohio university, eight young men select the vocation of medicine, and in its prosecution attend five different medical colleges, in four different states, and

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The almost phenomenal success of university graduates, while pursuing medical studies, is having a very marked influence, and in the right direction The honors and prizes obtained by these graduates of our literary institutions are out of all proportion to their numbers When, from a single class in an Ohio university, eight young men select the vocation of medicine, and in its prosecution attend five different medical colleges, in four different states, and zens and prospective citizens of the Keystone State study in the colleges of New York, Maryland, Ohio, Michigan and other states As soon as it is known that no one can practice in this wealthy commonwealth unless he passes the state examination, such persons will study in the highest grade schools, and in those whose graduates show the smallest percentage of failure before the Pennsylvania Examining Board Hence, if our schools are the best equipped and supply the best education, men will not pay their money to the teachers, boarding-house keepers, and merchants of other states, but will attend our own schools, and thus increase the business prosperity of Pennsylvania The competition of low grade colleges, whether in this or neighboring states, would not then tend to paralyze the efforts of institutions of high educational standard There would be no longer a premium offered for quick graduation after two years' study and a five minutes' oral examination in each of seven branches

Another indirect advantage would be this that students could study in several institutions, and thus gain the benefit of hearing the foremost teachers of various schools, instead of being cognizant with the precepts of but one faculty The former method of study is certainly the most elevating, as it broadens professional knowledge

The division of labor resulting from examinations being held by a non-teaching board, having committees in different parts of the state, would make it possible to hold written and manipulative, as well as oral examinations, and thus do better justice to candidates than is possible by an oral examination alone Again, the examinations not being held all at one time of year, would further accommodate intending practitioners and lessen the labor of the examiners As it is now, the college faculties, with great inconvenience to themselves, and often with injustice to the pupils, hurry through the examinations of several hundred students in a few days A gentleman, now dead, who was for years a professor in a large medical school, once told me of a case where a man who failed to pass his examination was actually graduated, because of a clerical error that occurred in the hurry of commencement time Neither of us knew how many people owed their deaths to that accidental physician Bright men may have been rejected by similar errors made in hasty examinations The state board examinations would be conducted leisurely, and, being partly written, would show by the records whether a man was unjustly recorded He would also have the right to a public appeal from the report of the board, which now he has not The college examination is, as it should be under the present arrangement, the private business of a private corporation, and therefore sealed from public inspection

Another advantage which deserves consideration is the power of revoking a man's license to practice, which would be possible if a State Examination Board is instituted His diploma cannot and could not be taken away, but his certificate of knowledge, character, etc , could be canceled or withdrawn by the board if he was convicted of criminal malpractice or similar crime

The last reason for advocating the law is cogent, but to my mind deserves little attention, because it is a selfish one, which should influence us much less than those previously discussed Such an examination would weed out and keep out of the profession those persons who, though ignorant of medical science, accept professional duties and emoluments, and thus increase the difficulty of an educated physician gaining a livelihood There are, undoubtedly, too many physicians for the needs of the closely settled districts Fewer doctors, and better ones, would be a boon to most sections of the state The state examination would effect both objects The legal profession has, I believe, certain restrictions to indiscriminate admission to the bar Why should not the medical profession have some similar protection.

Dr Isaac Ashe speaks of districts in Scotland where sixpenny charges are made by physicians, and says he knows of an English town of 50,000 inhabitants where one shilling charges are made for medical advice ["Medical Politics," the Carmichael Prize Essay for 1873, p 33] He quotes from the *Medical Press and Circular*, of September 11, 1872, p 216, the following charges adopted by a practitioner of thirty years' experience "Midwifery, two shillings and sixpence, advice, sixpence, consultations, one shilling" Is there a barrister in England, or an attorney-at-law in Pennsylvania, who accepts such insignificant fees for professional services? Yet the position of the medical profession in Pennsylvania is little better than that mentioned in England. The poor estimate put upon medical service is due to the overcrowded state of the profession and the inferior quality of much medical work, both of which conditions would steadily decrease after the initiation of a state examination

That the medical profession desires the adoption of a state examining board may be assumed from the recent action of the Philadelphia County Medical Society At a meeting of the present month, in which this and kindred educational topics were fully discussed by college professors, and practitioners, both general and special, the following resolutions were offered After postponement for printing and circulation they were adopted

Resolved, That the Philadelphia County Medical Society believes that the status of the medical profession of this state will be elevated by the establishment of a non teaching Board of Medical Examiners, whose certificate shall be the only one accepted by the Prothonotary's office for physicians registering after January, 1886

Resolved, That the other county societies of this state be requested to advocate the establishment of such a board at the next meeting of the State Society, and to discuss the matter, prior to that meeting, with the members of the General Assembly resident in their counties

Resolved, That the corresponding secretary be directed to transmit a copy of these resolutions to the secretary of each county society, with the request that immediate action be taken, and reported to this society

Resolved, That a committee be appointed to draft a law creating a State Board of Examiners, for the examination of all persons for license to practice medicine, the said law to be presented at the next meeting of the Medical Society of Pennsylvania by the Philadelphia delegates to that meeting

Having spoken of the advantageous action of a state examining board, I must hastily consider the objections that will be raised to its enactment

It will be said that physicians living outside of this state, but near its border, are often called to attend patients in Pennsylvania Very well, let them be examined by the Pennsylvania Board, and register in the county of this state nearest their residences Shall a physician of New Jersey, Maryland, Delaware, New York or Ohio practice continuously in Pennsylvania, without being subjected to the same examination as residents of this state? Certainly not Those, however, who come into the state as consultants with duly licensed practitioners of this state should, of course, be excused from the state examination So should dentists who do not practice medicine, whether residents or non-residents of the state In the same manner midwives, who attend the very poor in cases of confinement, should be exempt from professional examination, though they undoubtedly should be registered and give some evidence of obstetric knowledge

A physician changing his residence within the state would merely be required to register in his new locality, but would have to pass no second examination Nor should those now legally registered and practicing be required to pass the state examination

It will be urged as an objection that there are physicians who desire to practice special systems of medicine, and that such a state examination would exclude these from practice Not at all Let the board examine all candidates on anatomy, physiology, pathology, hygiene, surgery, obstetrics, chemistry and materia medica only, omitting theories of medical practice and therapeutics entirely from the schedule

I have thus advocated, Mr President and gentlemen, a measure which will, I believe, add to the wealth and prosperity of the State of Pennsylvania, and elevate the profession of medicine, for whatever elevates the latter must increase the former The wealth of a community is the health and lives of its citizens Every useful life saved, every illness shortened, adds to the public treasury The educated physician may do both, the ignorant physician does neither I pray you to aid in cultivating the one and eradicating the other

1118 Arch street

A CASE OF GOITRE WITH OBSTRUCTION---TRACHEOTOMY---SOME OBSERVATIONS ON TRACHEAL TUBES---EXHIBITION OF PATIENT AND MODIFIED TUBES FOR LOW TRACHEOTOMY

BY D W GRAHAM, A M, M D,

PROFESSOR OF SURGERY WOMAN'S MEDICAL COLLEGE SURGEON TO THE CENTRAL DISPENSARY SURGEON TO THE PRESBYTERIAN HOSPITAL

Read before the Illinois State Medical Society, May, 1884

I desire to report this case, both because I think it sufficiently interesting and instructive to put on record as a part of the proceedings of this society, and because it affords a good occasion to present the results of some studies and observations on tracheotomy tubes, which results, I venture to hope, may be of some practical service to the profession

May Parker, 13½ years old, in last December first noticed an enlargement of the thyroid gland She came under my observation for treatment in February following, since which time she has taken pretty large doses of iodine, most of the time in the form of the compound solution The gland was soft and symmetrically, but not greatly, enlarged—not essentially different from what you now observe—although it has diminished somewhat in size since the operation The isthmus was relatively more enlarged than the lobes, extending from the larynx down to the sternum During the four weeks of treatment before the operation, the goitre did not apparently increase much in size, but there began to be obstruction to respiration, and marked paroxysmal dyspnœa, chiefly at night In the early morning of the 24th of March, I was hastily called, and found my patient had barely escaped death in one of these paroxysms The parents, indeed, supposed at one time that she was dead I learned that these paroxysms had been gradually increasing in severity for several nights preceding, and that she had not been able to sleep recumbent The voice was stridulous, and there was decided lividity during the height of the paroxysms There was decided obstruction to both inspiration and expiration, and the usual sinking in of the soft parts of the thoracic walls on inspiration I was soon convinced that the patient could not safely pass through another night without relief, and decided upon tracheotomy Drs A B Strong and J D Skeer were called in, and fully concurred in the necessity for the operation In the hope that the obstruction to respiration was largely due to spasm from pressure or irritation of the laryngeal nerves, and in view of the difficulties that were likely to be met with in the low operation, it was decided first to make an opening above the isthmus I must give credit to Dr Skeer, however, by stating here that he did not fully endorse this proceeding The patient being etherized, I made an opening through the crico-thyroid membrane and the cricoid cartilage, an assistant making traction downward on the upper border of the isthmus, which was in the way A tube was inserted, but the dyspnœa was not relieved I immediately proceeded to open the trachea below, and in doing so encountered, in an exaggerated degree, a combination of all the difficulties we are ever liable to meet with in this operation The trachea recedes from the surface as it passes downward, until at the sternal notch it is nearly an inch and a half (Quain) from the surface, normally in the adult, but the distance, of course, was increased by the thickened isthmus in this case

There was absolutely no space for an opening between the sternum and the isthmus, except as the latter was pulled upward out of the way with a blunt hook On this account, the external wound could not be increased in length to correspond with its depth There were large turgid veins crowded together and necessarily embarrassing hæmorrhage, and before the operation was completed enough blood entered the trachea to seriously compromise the patient's chances

The next difficulty was an unusual one The trachea was found to collapse, completely flattening from side to side with each inspiratory effort This unexpected condition materially retarded my efforts to expose and incise the trachea and maintain the opening after it was made, so as finally to get the point of the tube in the incision The crowning trouble, however, was one of simple physics, best illustrated by trying to put a curved pin through a straight auger hole The upper or outer end of the tube, in trying to introduce it, would impinge against the anterior surface of the sternum, and thus prevent the inner end from reaching down far enough to enter the trachea By using some force, and raising the trachea toward the surface, the tube was finally inserted, but with the outer end buried in the wound Fortunately, my tube had a small, round neck shield, which permitted of this During all these steps of the operation, the patient's condition was such as to call for the greatest haste for its completion, as respiration was suspended a number of times completely, and it seemed at the time hopelessly The patient's life hung in a balance for several hours, and it would be tedious to give an account of all the vicissitudes and narrow escapes of the first five or six days succeeding the operation

The ordinary trachea tube proved to be wholly inadequate for emergencies like this, and indeed I believe it to be unfit for any case where the wound is either very deep or very shallow I exhausted all resources trying to get a tube of sufficient length and proper curve, but failed In twenty-four hours, however, it was absolutely necessary to remove the tube first inserted The swelling, still increasing, had already buried the outer end so deeply that it was becoming a source of danger, and the inner tube could no longer be reinserted after removing it to free it from the accumulation of mucus To tide over this emergency, I improvised a tube from a No 12 (English) silver catheter by cutting off the ends at the proper points This being tied in with tapes, proved an admirable device, so far as the length and curve were concerned, but on account of its small calibre and the rapid accumulations of mucus, it required frequent removal to prevent obstruction

A device which I found useful, and which became indispensable in aiding the frequent reintroduction of this tube, is worthy of mention It consisted of a small wire bent on itself in the middle, so that the two extremities were parallel, then curving these to correspond with the inferior surface of the wound, and making a slightly hooked extremity of the loop, which was to be placed in the lower angle of the tracheal wound, the end of the tube was made to glide along the parallel wires Without some aid of this kind, this provisional tube would have been useless

As it seemed likely that the patient would need a tube for some time, I set about devising an instrument that would fulfill the requirements of the case In this I had the valuable assistance of Dr Strong The result was the tube which you now see *in situ*, and which the patient has worn for two months with perfect comfort and safety It is a modification of the tube devised by A E Durham, of London, "who has made a very important advance in this department of mechanical surgery"

The distinctive features of the Durham tube are, first, that instead of being curved, it is right-angled with the angle rounded off, the inner or tracheal portion being short, and the outer or horizontal arm long, and, second, the neck plate or shield is made to slide up and down on the tube, and is secured by a binding screw at the point we desire, in adaptation to the variation in the depth of the wound in the same patient, or in different patients The inner tube is made up of segments jointed together (lobster-tailed), as it must be for any tube which is not a perfect arc

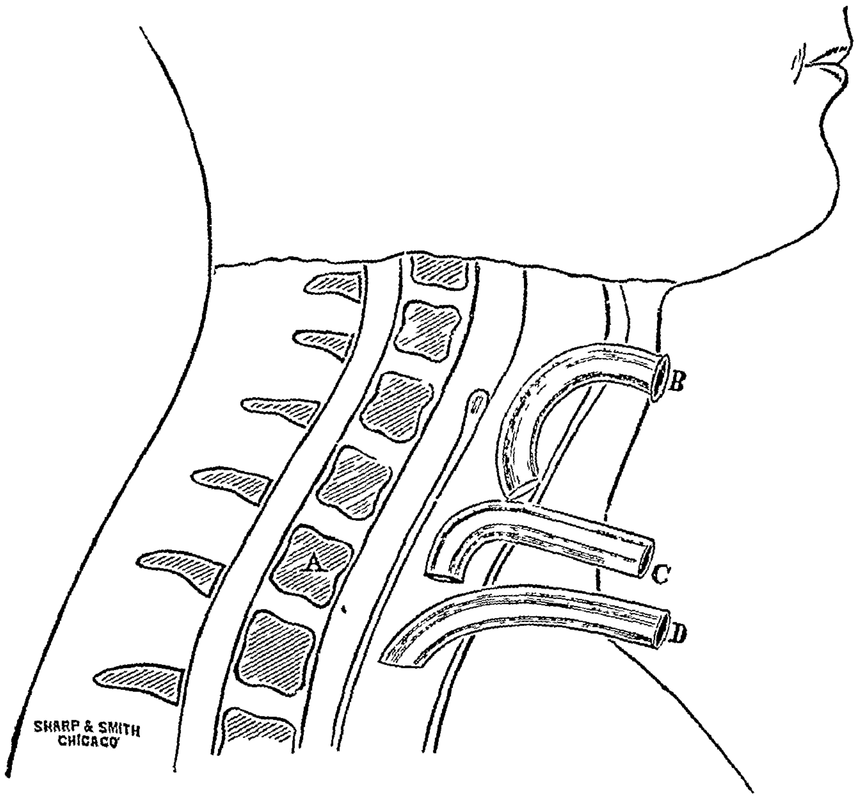
With it, as found in the shops, there comes also a jointed pilot or obturator to render it more easy of introduction

Now this instrument would have answered the purpose in my case if it were possible to introduce it, but it is a physical impossibility to insert the Durham tube with its short, inner arm and right angle through a deep, narrow wound I was not fully convinced of this until I made the effort And besides the axis of the tracheal portion does not correspond with the axis of the trachea at this point, although it does so, nearly, at all points above this

The essential modification of the Durham tube, which I have made, is in the shape The outer or horizontal portion is long and straight, but instead of the angle there is a curve, which, however, is not a perfect arc, but it is the only shape which approximately harmonizes with the anatomical relations of the trachea at this part of the neck, and at the same time makes it possible of introduction I know that only those who have encountered in some degree the kind of embarrassments this case presented, can fully appreciate the advantages of this modification To others it may seem unimportant The only valid objection that has been urged against the Durham tube is that the segments are liable to become detached and pass down the trachea I had this defect remedied by having the tip of the outer tube made slightly conical, and a slight "swell" above the middle of the lower segment, so that if it should become detached it could not pass through I have also discarded the metallic, lobster tailed pilot, and substituted one of soft rubber, made pervious (See illustration)

I think the advantages are obvious in having the pilot hollow, through which a small amount of air can pass while the instrument is being introduced I would like to suggest to the instrument makers that all forms of the Durham instrument be made with the rubber pilot, for while there would be nothing lost in efficiency the cost would be materially reduced I believe the chief reason why this instrument has not come into more general use is because it is relatively expensive If the instrument makers will adopt the suggestion I have made—to substitute the pervious rubber pilot for the metallic impervious one in this tube—they will do the profession a good service At least this modification should be adopted so far as to afford a choice between the two

Messrs Sharp & Smith, of this city, have adopted these suggestions in these tubes, which I exhibit here



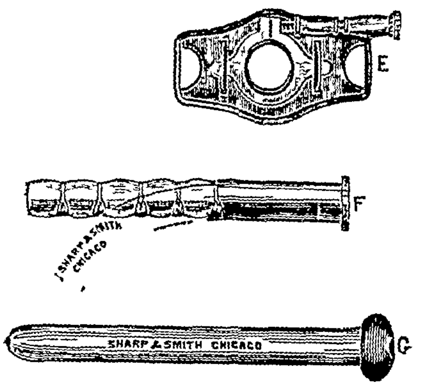


Diagram showing the Increasing Depth of the Trachea from the Surface of the Neck from above downwards in the Normal Condition of the parts and also, the Tubes described in the Paper and their adaptation to the Trachea when *in situ*

A, body of first dorsal vertebra the episternal notch on which *D* lies being opposite the middle of the second *B* illustrates the faulty position which the inner end of the quarter-circle tube assumes in most casesd *C*, the Durhem tube *D*, the modified tube describee in the paper for low tracheotomy, especially when thd wound is deep and narrow *E* adjustable neck shiel for *C* and *D*, but recommended for the quarter circle tube as well, which would make that shape much less objecionable *F*, jointed inner tube, for *C* and *D* *G*, a hollow, soft rubber obturator, recommended as a cheap but efficient substitute for the jointed metal obturator of the Durham tube, or any of its modifications, and suitable for tubes of any shape

The tubes in common use, as all know, are made after the pattern of a quarter of a circle, with almost no variation in length or curve If the trachea were always of a certain fixed depth from the surface, the quarter-circle tube would approximately fulfill the requirements, and it seems to be devised on the theory that there is no variation in the depth of these wounds But we know the great variations of depth at different times in the same case, as well as in different patients When the neck shield is secured against the surface of the neck, as it must be to maintain the tube in position, the inner end in one case would be pushed too far into the trachea In another case, it would not reach far enough to be secure, being easily dislodged by increase of swelling, while in nearly all cases the opening in the lower end, instead of looking downward, looks more or less toward the anterior tracheal wall so as to be occluded either wholly or in part These imperfections, which are inherent in any tube with a fixed neck shield, are happily overcome in the Durham instrument, in which the axis of the tracheal portion is straight and corresponds with the axis of the trachea itself, and what is equally important, this inner end is placed where we desire it, and there secured by moving the adjustable neck shield up or down, in adaptation to the thickness of the tissue at the time of its first introduction, or as they vary from day to day

I think it will be found, therefore, by all who have to do with tracheotomy tubes, that the Durham instrument, with some of its modifications, is the best yet devised, and the only one constructed on correct principles

It is a pertinent and practical question why a goitre of this size should interfere with respiration, for, as compared with the average goitre which we meet with in practice, this is not a large one The rule is, even in those cases in which the gland is enormously enlarged, that there is no obstruction to respiration So that size, as such, is not a factor in causing compression of the air tube ordinarily We know as a clinical fact that in acute goitre, where a considerable increase in the gland takes place in a few days, there is generally more or less dyspnœa But in this patient the gland had been gradually increasing in size for a period of four months before there was any noticeable dyspnœa I recall that when I was a medical student, Prof Frank H Hamilton related in one of his lectures to the class the particulars of a case of threatened suffocation from goitre, in which a post-mortem examination showed that a part of the isthmus was behind the trachea, which was compressed between the two portions An account of this case is given in Hamilton's Principles and Practice of Surgery Some works on anatomy I find allude to this anomaly, and there have been found a few cases where the entire isthmus was placed behind the trachea I think it probable that it is in some such anomalous disposition of thyroid tissue that we will find the explanation of the obstruction in this case, and in all those cases where neither the rapidity nor the size of the enlargement is sufficient to account for the conditions

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PNEUMONIA IN HIGH ALTITUDES AND ITS TREATMENT WITH JABORANDI

BY J W BROWN, M D

The greater prevalence of pneumonia in proportion to the population and its much higher rate of mortality in mountain attitudes, than at the average elevation of the earth's surface, set the writer, about six years ago, to seek about for a plan of therapeutics of greater efficiency than that generally practiced and approved About that time jaborandi came into use, and there were notices in the medical journals of its efficacy in the treatment of dropsies by virtue of its peculiarly powerful influence on the sudoriparous glands Its wonderful diaphoretic power pointed it out to the writer as being possibly a useful agent in the treatment of pneumonia in its early or formative stage, with the object in view that by its means an abortion of the disease might be effected by limiting the effusion, and thus averting the perils of a fully developed pneumonia

An immediate trial of the drug seemed to confirm the supposition, and an invariable use of it for the last five years in the formative stage of pneumonia has been productive of such extraordinarily beneficial results, apparently, that the writer is induced to present the experience and the method to the attention of the medical profession, asking their indulgence to the extent of first putting the method to a fair trial and then approving or condemning as the results may warrant

There is nothing of originality claimed in this practice by the writer, for he is fully conscious that the result of the action of the drug is identical with the result of the action of the steam-bath or sweat bath practiced by Thompson and others with the same end in view—the abortion of pneumonia in its formative stage This resort to an almost obsolete method has been the outcome of necessity in an endeavor to obviate the almost certain death that follows upon a fully developed pneumonia in the altitude of the writer's practice, viz An elevation ranging from eight to twelve thousand feet above the level of the sea, in the San Juan mountains An exceedingly high rate of morality, and a greater prevalence of the disorder in proportion to the population than at lower levels, accords, we believe, with the experience of every practitioner of medicine in the mountain altitudes, and a firm conviction of the efficiency of this method as a result of five years' experience with it has led the writer to lay this report before the medical profession, sincerely believing that its general adoption will materially diminish the mortality resulting from simple pneumonia, whether occurring in mountain altitudes or at the level of the sea

We give a few illustrative cases

Case No 1 Mrs S, aged 30, merchant's wife Had had pneumonia according to her own account, several times before at Del Norte, about seven thousand feet above sea-level Had probably had pneumonia before, because she detailed the symptoms of pneumonia of her own accord, viz A chill, with a sense of shortness of breath, followed by pain in the chest, cough, bloody expectoration, fever, prostration, and three or four weeks' sickness, she being at the point of death part of the time, and all the while under the care of a regular practitioner About five years ago was called to see her, found her in a rigor which was very marked Her face was cyanosed, extremities cold, she was shaking from head to foot, and her teeth were chattering as though she had an ague, and she complained of a shortness of breath She said "I am going to have pneumonia, I recognize it and I am afraid of the result" She was then living 9,400 feet above the sea Ordered her put to bed immediately and prescribed

℞	Ext jaborandi fl	℥iv
	Spts ammon aromat	♏40
	Syrupi simplicis	℥iv

M S One teaspoonful every two or three hours to induce profuse perspiration

She was put to bed, covered heavily with blankets, surrounded with hot irons wrapped in wet cloths, the irons being placed close to her body and the mixture administered as directed In about twenty minutes she commenced to perspire profusely, and the sweating was maintained at its highest pitch for about six hours Her bedding and clothing were then changed, her body wiped dry and fifteen drops of the mixture were administered sufficiently often during the night to keep her skin moist The next morning she got up at her usual time and resumed her household duties During the day she expectorated a small quantity of pneumonic sputum and complained of a slight feeling of soreness in the lower lobe of the right lung, but recovery was almost immediate She did not go to bed again on account of this sickness and she had no further medication on that account

Case No 2 J B, a miner, aged 54 Lived in a miner's cabin about four miles out of town, and at an elevation of about 10,000 feet On inquiry found that he had the symptoms of commencing pneumonia Prescribed the mixture of the above prescription, and gave directions as in the preceding case The next day the brother reported the patient better in some respects but worse in others He said the patient had retention of urine Went up to see him and found him on his knees in bed vainly trying to void his urine into a tin cup Introduced a catheter and found the bladder almost completely empty Ordered cold water to be drank in plentiful quantity, the patient having abstained from drinking water for fear of aggravating the supposed retention of urine He expectorated pneumonic sputa for two or three days, but within a week he resumed his work. In this case the sweating was so extreme that the skin had temporarily almost entirely usurped the function of the kidneys in the elimination of water, and the small quantity of urine in the bladder—a few drops only—was very acrid and irritating The kidneys resumed their function in a few hours

CASE No 3 J K , aged 24, a miner Lived at Ophir, thirteen miles away, across a mountain range, and at an elevation of 10,000 feet He was taken with a chill at four o'clock in the morning I arrived at his bedside at half-past four o'clock in the afternoon, so that the disease had a start of twelve hours and a half From description given by messenger, a diagnosis of pneumonia was made out The patient was in bed Face was dull and leaden in color, he had fever, cough, pain in the right lung, and a sense of shortness of breath, and the floor near the head of the bed was covered with bloody expectoration The floor was spattered with pneumonic sputa all over an area three or four feet in extent in all directions Physical examination showed a dullness in the lower part of right lung, with subcrepitant râles This was a case of plastic pneumonia beyond the shadow of a doubt, and it had a start of twelve and a half hours He was treated in the same manner as the two preceding cases In a quarter of an hour beads of sweat stood out on his forehead, and the patient was informed of the certainty of a speedy recovery

As the sweating progressed, he experienced proportionate relief The sweating was continued at the highest pitch for nearly eight hours Ordered a diminished dose of the mixture, continued for two or three days, gave general directions for his further management, and dismissed him with orders to report if necessary In a week he resumed his work, having made a complete recovery

CASE No 4 J C , saloonkeeper, age 24 Had had pneumonia two years previously at Leadville, and was confined to his bed three weeks, being very dangerously ill, according to his own statement, most of the time He spoke very flatteringly of the physician in charge, on account of the good care rendered, and expressed himself as very lucky that he finally recovered, the prevalence of the disease and the rate of mortality being exceedingly great at that time at Leadville Was called to see him on a Sunday afternoon, at half-past three He had been taken with a chill at seven o'clock in the morning of the same day, so that the disease had a start of eight hours and a half His pulse was full and bounding, expectoration profuse and typically pneumonic, there were fever, a dull, leaden face, pain in the right lung, cough, and a sense of a want of breath Examination gave the physical signs of pneumonia He said it was the same thing he had at Leadville He was treated in the same way as the preceding cases, with the same exceedingly profuse diaphoresis as a result, and the same relief He remained in bed till the following Thursday morning, when he got up at the usual time and resumed his regular occupation He was dismissed on Thursday morning without further treatment, and two days after was apparently well Other cases may be given, and some who have walked the street within two days expectorating pneumonic sputa, after being subjected to the jaborandi sweat-bath ordeal, without relapse or further inconvenience, convalescence continuing to perfect recovery in a few days thereafter

These cases are but examples of the usual behavior of pneumonia treated by the jaborandi method, in the formative stage, so far as the experience of the writer goes, during the last five years, so that he feels compelled to advocate a more general trial of the method, having had two cases only of death from this disease in five years, one being a case of neglected pneumonia, which had developed to the involvement of two-thirds of the right lung in pneumonic solidification, death taking place suddenly on the day after the first visit and apparently from heart clot, the second case being that of an old man whose constitution was already shattered with hard drinking, and in whom the disease, if it were pneumonia, developed insidiously and resembled as much a hæmorrhage as pneumonia, symptoms were so anomalous

In the practice of the writer, he feels that pneumonia has lost its terrors even in these high mountain altitudes, whereas before this practice the mortality was great and the doctor overwhelmed with a sense of helplessness A case of simple pneumonia that would recover without any care, other than that of simple hygienic management, at sea-level, seemed, in these altitudes, to be almost necessarily fatal, and recovery from double pneumonia an impossibility The only safe way in mountain altitudes is to abort the disease early, before the advent of symptoms indicating asthenia, and this can be done at any time previous to the appearance of asthenic symptoms by the simple method detailed herein, that is to say, limitatioin the extent of the solidification may at any time be effected before symptoms of asthenia make their appearance, so that as small a portion of a lung as possible may be rendered useless by solidification

The excessive mortality in pneumonia at mountain altitudes, over that at the average level of the earth's surface, seems to be due to the rarefied condition of the atmosphere mainly, its chemical composition being the same as everywhere else in open country, as shown by chemical analysis of three specimens, one of which only showed a trace of ozone

Exhaustion seems to take more rapidly on this account, due probably to a deprivation of oxygen At 10,000 feet, a volume of air of sea level density expands into about one and one-half volumes, so that a man in health needs to breathe a quantity of air greater in volume by one half, in order that the tissues of the body at large may be supplied with the requisite quantity of oxygen Hence, probably, the greater gravity in mountain altitudes in case in which a considerable portion of a lung becomes solidified In an inflammation of lung tissue there seems, also, to be a greater rapidity in the spread of the inflammatory process to adjacent lung tissue, probably owing to increased functionation, and hence the necessity of a more active treatment to stay the inflammatory process and effect resolution That a pneumonia may be aborted the writer has no doubt, judging from these results, however crude the experiments may be, and that the duration of the disease is in ratio with the extent of the solidification, and inversely, also that the extent of the solidification bears a relationship to the time elapsing between the initiatory chill and the establishment of a thorough derivation by profuse diaphoresis

It would seem, also, that the pathological condition is a simple inflammation independent of zymotic influence, as the remedial agent in its action is purely physiological, a derivative influence only being exerted from the lung tissue to the cells of the sudoriparous glands,—otherwise, on the cessation of the physiological action of the drug, the zymotic influence still persisting, the pathological process ought again to be awakened

The method described is inapplicable after the appearance of asthenic symptoms, because the mischief sought to be averted is already in existence and is the cause of the asthenia, viz a fully developed pneumonic solidification If it is now too late, the only resort remaining is the method of support and hope, both together, in these mountain heights at least, being inadequate to the making of a lung largely hepatized to breathe a sufficiency of oxygen for the needs of the economy, when in its full capacity this is about all that it can do

The writer has taken advantage of the sudorific power of jaborandi in the treatment of other inflammatory affections, and notably in the treatment of quinzy and bronchitis, and with results similar to those obtained in the treatment of pneumonia But in all instances it is a remedy only in the formative stage

SILVERTON, COL, Feb 14, 1885

MEDICAL PROGRESS

OBSTETRICS AND GYNÆCOLOGY.

LOCAL TEMPERATURE OF THE BREAST AFTER DELIVERY —M Chatelet (*Paris Medical*) has studied the local temperature of the breast at the time of the secretion of milk, and finds that it results in an elevation of temperature to the extent of two or even three degrees, that there exists an evident relationship between the temperature of the breast and the secretion of milk, the temperature rising as the secretion becomes more abundant, that, on the second or third day after delivery, the local temperature of the breast reaches and passes 36° C, and that if it remains at that register for the first eight or nine days of lactation the milk is sure to be abundant, that the secretion of milk will be but slight if the temperature remains below 36°, or does not retain that register, that the secretion of the milk has no influence on the general temperature, and that milk-fever does not exist, and finally, that the general temperature has a marked influence on the local temperature of the breasts

TRAUMATIC TUBERCULAR PLEURITIS —Prof von Bamberger (*Wiener medizinische Wochenschrift*, *Med Times*) gives the case of a man, aged 43, a confirmed drinker, who was struck on the left side of the thorax by a wheel Pain, cough, and other symptoms of pleuritis rapidly showed themselves The patient, in whom no inheritance of tubercle could be traced, presented when first examined all the physical signs of left-side pleuritic effusion The sputa and blood were carefully examined, but no trace of bacilli could be discovered The case progressed unfavorably throughout, and fever, cough, and dyspnœa became daily worse Thoracentesis was delayed by the patient's obstinacy, till a month's illness had materially depressed his strength and Cheyne-Stokes respiration had set in The operation gave but little relief, and death ensued from œdema of the lungs The autopsy performed by Professor Kundrat proved the existence of extensive diffusion into the left pleural cavity, the walls of which were lined by a thick false membrane studded with nodules of tubercles of the size of millet seeds The left lung was completely compressed, but no tubercles could be discovered within it, nor were they to be found in any of the other organs of the body By the microscope the nodules in the thickened pleura were found to contain numerous bacilli, indistinguishable in form and character from those described by Koch, but similar investigation of the pulmonary and other tissues of the body failed to discover a trace of them elsewhere If it be admitted that the bacilli in such a case as this form the determining cause of the disease, it only remains to be decided how the bacilli obtained access to the affected part One theory propagated by Baumgartner suggests the possibility that a real physical inheritance of the virus has taken place, and that the poison lies dormant in the body until favorable conditions for its development present themselves Another view, perhaps more easy of acceptance, regards the general circulation as the natural channel for the distribution of the bacilli, and the white corpuscles as the bearers of them An apparently primary tubercular affection such as this case exemplifies is occasionally to be noted in the long bones, in which also the presence of bacilli has been more easily demonstrated than explained

MEDICINE.

ON GUMMATA OF THE SKIN —According to Balzer (*Revue de Medicine*, *Jour de Medicine*) the specific character of the products of inflammation is not distinguishable by the anatomical form, the differences in these forms occur, on the contrary, in their modes of evolution

The process of evolution of the gummata comprises three stages

1 Inflammatory stage formation of primitive gummous nodules about the vessels (period of crudeness of the gummata), elongated cylinders composed of embryonic cells more or less developed (lymphoid or epitheloid elements) envelop the vessels, they result from an inflammation of the vascular walls The vessels are still permeable At this time the lesion is still curable,

2 Stage of degeneration vascular obliteration, necrosis with consecutive coagulation, granular degeneration, formation of a caseous deposit The degeneration commences at the periphery of the nodules and follows the contiguous vessel in a centripetal course The degeneration is in part of a fatty nature, and partly of an indefinable nature (granulations that are insoluble in ether, and not colored by osmic acid) In the caseous masses the presence of elastic granules indicates the destruction of elastic

fibres, and they are detected by picric acid, but they soon lose their micro-chemical characteristics and are confounded with the other granulations,

3 The evolution terminates in two different ways (*a*) encysting of the caseous deposit, which is enveloped by a sclerous zone, increasing until the disappearance of the deposit by absorption, (*b*) extensive advance of the degeneration, destruction of the epidermis, ulceration and progressive elimination of the gummous deposit

Icterus Produced in the Course of a Few Hours by Nervous Irritation —Dr H Rendu (*France Medicale, Jour de Med et de Chir*) relates the case of a woman 25 years of age, who had been treated in his hospital service for puerperal peritonitis During her convalescence, while her general condition appeared to be good, she was affected with retention of urine The student who attempted to use the catheter made several ineffectual efforts, but was obliged to desist on account of a sort of nervous crisis which his manipulations produced Three-quarters of an hour later, when he returned to the ward, he was astonished at seeing his patient manifestly jaundiced (she had a very clear skin previously) As he was about to attempt catheterism again the patient, still very nervous, urinated spontaneously—the urine being of a deep brown color, and evidently containing biliary pigment This occurred at 11 30 A M At 1 P M the yellow color was marked not only in the conjunctivæ, but also all over the skin, being most pronounced on the abdomen and trunk, and a little less so on the extremities

On the following day the jaundiced appearance was as decided as during the most intense and prolonged cases of hepatic colic The urine looked like brown beer, and gave a green color on the addition of nitric acid The stools were of the greyish, clayey character, as when deprived of bile The pulse was normal—no prurigo, no nervous trouble, no hæmorrhagic tendency, tongue clear, marked thirst, no want of appetite, ate but little, no pain over nor enlargement of liver, no abnormal sensibility at the epigastrium

For two days the icterus retained its maximum of intensity The third day it commenced to decline, and the stools took on a little color, the urine remaining dark The fourth day gave no trace of the jaundice externally, only the urine was a little dark in color and responded to the nitric acid test On the fifth day there was no evidence whatever of the recurrence of jaundice

Osmic Acid in Sciatica —Mr James Mercer reports in the *Lancet* the results of his practice with this drug in eighteen cases, treated at the Bath Mineral Water Hospital He claims that only about twenty-five per cent remain of the cases admitted as not benefited by the waters, and it is to this twenty-five per cent that he applies this treatment The patients' ages varied from eighteen to sixty-five In twelve cases he succeeded in giving them absolute relief for a period of three weeks The number of injections varied from one to four In six he gave temporary relief The injections were as many as twelve in one case, and they obtained more comfort by its use than even by hypodermic injections of morphia He used a one per cent solution, injecting deeply over the sciatic nerve, at a point midway between the tuber ischii and trochanter major, three to five minims of the solution It produced no constitutional effects, but locally at the seat of puncture the patient invariably complained of a numb feeling, which, however, was transient In some cases the effect was marvellous, the patient being able after a short time to stand on the affected side, which he had been unable to do for years

On the Elimination of Phosphoric Acid by the Urine in Mental Diseases —M A Lailler (*Annales des Maladies des Organes Genito-Urinaires*) gives the following as the result of his researches

1 In acute delirium and in acute mania, phosphoric acid and urea are eliminated in notable excess

2 In mania with excitement, phosphoric acid is eliminated in slight excess, that of urea is normal

3 In simple mania the urine is physiologically normal

4 In melancholia in the acute stage or with excitation, there is a notable increase in the elimination of urea, and a slight increase in the elimination of phosphoric acid

5 In melancholia without excitation, there is no increase over the physiological quantity of phosphoric acid eliminated in urea

6 In general paralysis, the excretion of phosphoric acid and of urea is in close relation to the multiple morbid conditions characteristic of that disease

7 In epilepsy the urine at the time of the crises, or immediately afterwards, contained a markedly increased proportion of phosphoric acid, and a moderately increased proportion of urea, when the attacks succeed each other rapidly there is an exaggerated amount of both phosphoric acid and urea, in the intervals of the attacks the urine is normal

Auscultation of the Œsophagus in Deglutition and in Pathological Conditions —A Baretz (*Revue de Medecine, Jour de Med*) considers that In the normal state, the sounds of deglutition are perceptible by auscultation in the interscapular region, and seem to be a little more intense to the left than to the right of the vertebral column

In certain pathological conditions the intensity of the sounds of deglutition seems to extend in a greater degree to one side or the other of the vertebral column Among these pathological conditions the most noteworthy were First, the tuberculous induration of the apex of the lungs Second, the tracheo-bronchial ganglionic engorgement In these cases the intensity of the sounds of deglutition is most pronounced on the side where the lesion exists or predominates

At other times the modification influences not only the intensity, but also the quality of the sounds of deglutition Thus, in a case of pleuritic effusion, the sounds of deglutition on the corresponding side partake of the quality of the pleuritic souffle

Baretz considers that the study of the sounds of deglutition as now applied to the diagnosis of the seat of a lesion of the œsophagus (narrowing, for example) might also be applied in certain cases in determining the exact seat of a pulmonary lesion

The Diaphoretic Treatment of Puerperal Eclampsia by Means of Hot Baths —Brens (*Archiv f Gynak* , *Edin Med J*), has now reported two sets of cases placed under this treatment The first set included six cases, with five recoveries and one death, the second set includes eleven cases with one death The treatment consisted in placing the patient in a bath (38° C), raising the temperature gradually, then wrapping her in blankets, thus securing profuse diaphoresis Of the eleven cases four had convulsions at the beginning of labor, two during the first stage, one during delivery, and four after In the majority of cases the eclamptic seizures were severe In the fatal case the issue was more probably dependent on peritonitis, possibly septic, than on the convulsions The two series together, then, afford a total of seventeen cases, with but two deaths—one of these latter not from convulsions In eclamptic seizures the danger to life depends only indirectly on the convulsions The main danger lies in the altered characteristic of the blood—hydræmia—and the consequent albuminuria and anasarea These accompaniments of Bright's can obviously best be met by profuse diaphoresis, a treatment which, while it can have little effect toward curing the kidney trouble, undoubtedly relieves the symptoms which are threatening the life of the sufferer. From the use of this hot-bath treatment Brens has seen nothing but good effects It is not apt to cause either abortion, or premature labor, or hæmorrhage, on the contrary, he would advise the use of hot baths at any time of pregnancy when the appearance of albumen in the urine and coexisting œdema causes apprehension of ill, indeed, they are indicated as a prophylactic measure A striking case is recorded, where a patient, æt 26, in her first pregnancy, highly dropsical, with a large percentage of albumen in the urine, was subjected to the hot-bath treatment at the eighth month, went to term, was delivered of a child weighing 2,700 gm , received during this interval forty-five baths with positive good effects, both as concerned her own condition, the continuation of the pregnancy, and the safety of the child This treatment answers when eclampsia exists, and also in those cases where the occurrence of the eclampsia may be apprehended

Treatment of Earache —M Moure (*Jour de Med de Bordeaux*, *Jour de Med et de Chir*) uses habitually a combination of atropia with morphia to quiet the pains of earache, giving relief to otalgia and to cases of subacute otitis of the tympanum and of the Eustachian tube, particularly in children He prefers a solution of morphia to instillations of oil, laudanum and ether, these substances having the effect of producing a traumatic meningitis and sometimes graver lesions He prescribes Sulphate of atropia, 2 to 5 centigrammes, chlorhydrate of morphia, 5 centigrammes, neutral glycerine, 15 grammes, on cotton wool at the external auditory meatus, and, when necessary, a drop or two by instillation night and morning into the auditory canal This will relieve external otitis and furunculous otitis

Disease from Bichromate of Potassa —Dr B W Richardson, in *The Asclepiad*, gives a plate showing the diseased influence of this drug upon the hands in an admirable manner, and gives an account of its mode of action It seems that in transferring the neutral chromate of potassa by means of acid into the bichromate, the vapor arising carries with it an infinite number of pulverized particles of the bichromate, which, inspired in abundance, give to the palate a bitter and very disagreeable taste If the respiration be made by the nose the particles are dissolved in the secretion of the membrane of the septum of the nose, creating a violent pricking, suffusion of tears, and irresistible sneezing In time, the membrane begins to be thrown off, and portions of it are carried into the handkerchief used in blowing the nose This process goes on so rapidly that after a period of six or eight days the septum becomes thin, is permeated with openings, and is ultimately detached altogether At this point all the symptoms cease, and the workman scarcely notices the loss of the nasal partition This process of ulceration does not occur in those who take snuff In these, owing to the layer of powdered tobacco which covers the membrane, and the frequent use of the handkerchief, the evil is removed, or rather prevented It is the cartilaginous portion of the structure that is specially attacked

On the skin, in its normal state, the epidermis being intact, the bichromate exerts no baneful influence, the hand may be plunged into a concentrated and hot solution of the salt, and remain covered with it for an entire day without effect, but if the skin is torn or abraded, a sharp pain is felt, the cutaneous tissue is decomposed, and violent inflammation is established These symptoms are accompanied with intense pain, especially in winter, when the cold is severe The action of the salt does not cease until the cauterization has penetrated to the bone Internally, in a small dose, a few centigrammes, the bichromate acts as a purgative, in larger doses, say of one gramme, it acts as a poison In the large doses it produces colic and purging, but no vomiting In one manufactory certain of the workmen placed some bichromate of potassa in a barrel of cider as a joke All who drank of it were affected with severe colic and diarrhœa

Dr Richardson gives five cases of workmen in business where the bichromate is used, and as a weak watery solution of five to six per cent of the salt, where the hands and forearms were the parts most affected and as if affected with acute eczema The symptoms as described by a sufferer are as follows "The first symptoms of local poisoning are heat, itching, and tingling upon the ends and middle joints of the fingers, which, when examined, are found to be covered with minute, irregular red patches, upon which are numerous small elevations clustered together In the course of a day or so these enlarge to the size of a small bead, and are filled with a limpid fluid In a short time these clusters run into each other, forming large blisters, which dry and crack open, causing the most acute pain and itching At this stage pustules begin to form over the body, mainly down the spine, on the neck, left side, arms and ankles, accompanied with considerable constitutional affection, such as sickness, headache, thirst, fever, sleeplessness, and loss of appetite " The eruption did not always partake of the character of eczema, but in one case bore a close resemblance to pitzriaris rubra

As to treatment, the application, while exposed, of a wet sponge before the nostrils appeared to be advantageous When the skin was abraded, and the chromate had produced ulceration, it was the best treatment to wash thoroughly with a feeble alkaline water, then, if inflammatory action followed, to poultice, and afterward to apply freely sub-acetate of lead in solution Abstinence from beer, spirits, coffee, potatoes, brown meats, salt fish, sugar, and tobacco One drachm of liquor potassa in a cupful of barley water thrice daily, before meals, for five or six days, after which three times daily of tr serpentaria one drachm, with five drops of laudanum When the patches begin to heal, resin ointment locally, and a mixture of ammonio citrate of iron, with iodide of potassium and bromide of ammonium in solution with camphor water Washing the hands in ammonia does no good, a solution of bichromate, rendered perfectly alkaline with ammonia, poisons quicker than an acid or neutral solution Dr Richardson recommends the wearing of a mask and impermeable gloves while at work

His theory of the mode of action of this agent is, that it acts upon the gelatinous structures of the body It changes their molecular condition, and renders them insoluble That leads to an arrest in the living dialysis and in the transudation of fluid The arrest leads, in turn, to perversion of function, to congestion, and to all the subsequent phenomena

Morphia in the Urine of a Morphine Habitue —Dr B W Richardson, in his *Asclepiad*, gives the case of a man, aged 47 years, tall, plethoric and ruddy, who has been addicted to morphia-taking for the past ten years When first seen he was taking thirty-eight grains daily Twelve ounces of fresh urine, after the injestion of thirty six grains, yielded morphine equivalent to 1 2 grains of morphia acetas The morphine was satisfactorily identified by Mr A Winter-Blyth, turned into the crystalline hydriodate, and gave the usual reaction with iodic acid A few days later, after the injestion of twenty-one grains, the urine yielded the equivalent of one grain of the salt Still later, the quantity injected being reduced to six and a half grains, the urine yielded 0 18 grain of the salt

A Simple Disinfecting Lamp —Take an earthenware or metal lamp, fit it up with the cotton wick in the usual way, and then charge it with a mixture of equal parts of common benzoline and of carbon bisulphide The lamp so formed is lighted in the usual way, and gives off when burning free quantities of sulphurous acid The object of adding the benzoline is to give steadiness to the liquid during the process of burning —*Dr B W Richardson in his Asclepiad*

SURGERY.

Effect Produced by the Introduction of a Bed bug into the Ear — Dr Grand (*La Loire Médicale, Paris Medical*) gives the case of a patient who was awakened at night by an intense pain in the left ear She felt something running at the same time in the auditory canal, and supposed that some insect had entered there She filled her ear immediately with warm water, and in about half an hour the pain was lessened, and the movements which were felt ceased entirely However, a dull pain with deafness remained, accordingly, on the following day, by the advice of a friend, she dropped several drops of the essence of peppermint into the ear Immediately there followed an intolerable pain which lasted two hours When seen by the doctor on the third day, she complained of frequent severe lancinating pains in the ear, of deafness and of noises The watch could not be heard to tick when applied against the affected ear, while on the sound side it could be heard at a distance of forty centimetres On illuminating the interior of the auditory canal, a dead bed-bug was seen distinctly upon the tympanum, and a slight injection of warm water dislodged it The tympanum was markedly red and thickened throughout its extent It was impossible to examine it in detail, except attachment of the external apophysis of the malleus It seemed to be slightly more concave than is normal There was then an acute myringitis produced both by the essence of peppermint injection and by the presence of the bed-bug There are several observations on record where bed bugs have passed into the ear and produced acute pain by sucking the blood from the membrane of the tympanum This pain is infinitely more violent than that produced by the movements of the feet of other insects The inflammation of the tympanum was relieved in eight or ten days, the hearing returning to its normal condition The treatment consisted in the use of insufflations by Politzer's bag, and slight applications to the tympanum of boracic acid and vaseline

A Perineal Calculus —Dr Sarget de Orihuela records (*Union de las Ciencias Medicas, Gaz hebd des Sciences Med*) the case of a laborer who suffered for two years from a tumefaction in the perineal region, which was the cause of sharp pains The patient attributed his difficulty in urinating to the pressure exerted by the tumor upon the urethral canal Several diagnoses had been made, one of a tumor of the prostate, a malignant tumor, and of a phlegmon Direct examination showed an extensive induration from the base of the scrotum to the anterior segment of the anus, of an almost cartilaginous consistency, and the slightest touch produced acute pain Urination was drop by drop and very painful A local application of strong iodine ointment produced increased pain, an increase in the size of the tumor, and resulted in the formation of a point of fluctuation Puncture discharged a large quantity of pus and allowed the passage of the index finger, which encountered a hard, rough foreign body implanted in the peri-urethral tissue, this was removed with the forceps in three fragments, after which the wound cicatrized, but not very firmly, but urination became easy, and the general health was reestablished

As a cause for this deposit it seems that the patient had at one time received a contusion in the perineal region, resulting in the retention of urine for thirty-six hours For fifteen days afterward he suffered from acute pains in that region, which gradually disappeared The calculus was formed mostly of phosphates, of carbonate of lime and organic matters There were also traces of urate of lime

Contusion and Laceration of the Kidney, Recovery —Dr Gelly (*Revue Medicale de l'Est*, *Annales des Maladies des Organes Genito-Urinaires*) describes the case of a man, sixty-two years of age, who was injured by the wheel of a passing carriage, he sustained a fracture of the twelfth rib on the right side, and at the same time the urine was colored by hæmaturia This hæmaturia persisted for five days and then disappeared, to return on the twelfth day in consequence of the getting up and violent sneezing of the patient There was then very acute pain, which was, however, but momentary, and felt in the right renal region The blood was discharged in much greater abundance than at the time of the accident This time the hæmaturia persisted for nine days and then disappeared Eight days later there was retention of urine with persistent straining, which finally yielded to the violent efforts of the patient, and there was an evacuation of a notable quantity of blood which was almost pure, mingled with voluminous clots, and nearly filling a third part of a chamber pot The bladder, which had formed a hard ball in the hypogastric region, became normal and the patient was relieved The hæmaturia diminished rapidly and ceased definitely three days later For some time the patient was kept under the influence of ergot, of injections of ergotine in the renal region, and the sulphuric acid mixture (eau de Rabel), which latter was freely used at first

A month after the last hæmorrhage there was no longer any blood in the urine, nor was any albumen present M Gelly has no doubt but that this was a case of laceration of the kidney He considers the wound of the kidney, while in course of cicatrization, to have been opened the first time from a mechanical cause, and a second time without any appreciable cause It did not definitely cicatrize except by delayed union and a new generation of the lacerated surfaces The precise seat of the laceration remains hypothetical The absence of all tumefaction would indicate a perinephritic discharge, and the laceration probably had its seat near the hilum, directing the blood into the calices and pelvis of the kidney

Cocaine in Rectal Surgery —The *Lancet* gives us a reference to the case reported by Dr Bettelheim, of Vienna, of a man aged seventy four, who had well-marked anginal attacks the result of atheroma of the aorta and ossification of the coronary arteries For some time he had, in addition, complained of rectal and vesical tenesmus Percussion over the bladder showed that it was not dilated, and rectal examination demonstrated the fact that the prostate was much enlarged, and probably the cause of the trouble Cacao butter suppositories were ordered, each containing half a grain of muriate of cocaine One of these was inserted into the rectum at bedtime, and the patient slept well and was not troubled during the night The beneficial effects were apparent the whole of the following day The suppository was not given that evening, and the patient passed an uncomfortable, restless night The next day another suppository was ordered, and acted as well as the first

Injections of Quinine in Urethritis —M Girerd (*Jour de Med et de Chir*) uses the following with success in paludian urethritis

Chlorhydrate of quinine	2 to 4 grammes
Distilled water	300 grammes
Glycerine	50 grammes

This injection, repeated three or four times daily, has always arrested the most rebellious discharge

Weirs (*Gaz hebdomadaire*) uses in true blennorrhagia

Sulphate of quinine	1 gramme
Water	75 grammes
Glycerine	25 grammes
Eau de Rabel (acids sulph alcoholisatum, q s	

Three injections a day of about five grammes Great care must be taken not to interrupt the use of the injections until the discharge has ceased, as, in that case, relapses are frequent

Exfoliation of the Cochlea without Causing Deafness —The Vienna correspondent of the *Lancet* describes a case under the care of Professor Gruber, a lad aged fourteen, who had been ailing for four years, suffering from an old otorrhœa, with polypus of the left ear As the patient experienced great pain, and as paralysis of the left nervus facialis existed, Professor Gruber had no hesitation in entirely removing the polypus, and in so doing came upon the cochlea in a state of necrosis Since the operation the patient has felt better, his pains have ceased, and the paralysis of the nervus facialis has nearly disappeared, but, strange to say, the lad's affected ear has regained its power not only of recognizing sounds, but of distinguishing musical notes

The Professional Lipoma of Prostitutes —Dr Preis (*Weekly Medical Review*) has noticed in 217 prostitutes a sort of lipomatous tumor seated between the sixth and seventh cervical vertebræ over the spinous apophyses These hemispherical tumors are a little firm, elastic, mobile, and not painful He considers them to be due to pressure and friction during coitus, and has not found them in those who are not prostitutes

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer s full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE, INCLUDING POSTAGE

PER ANNUM IN ADVANCE $5,00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any date The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, MARCH 7, 1885

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION —As the time is near for the next annual meeting of the association, when the board of trustees charged with the publication of this JOURNAL must make arrangements for the future, I regard it as a duty to give all parties interested as accurate information as possible concerning the past progress, present condition and future prospects of the journalistic enterprise I shall do this with no feeling of embarrassment or selfish interest, as I accompanied my letter to the board of trustees accepting a continuance of the editorial office, at its meeting in Washington last May, with the explicit declaration that "under no circumstances" could I extend that continuance beyond the present JOURNAL year, which closes with the current volume, June 30, 1885 Those who originated the policy of changing from the publication of the Transactions, in one annual volume, to that of a weekly journal, claimed three leading and important advantages for the latter method

1 That the reception of a JOURNAL every week containing some part of the doings or papers of the association, and a fair amount of the current items of medical progress in all departments of the profession, would tend strongly to keep up an active interest on the part of each individual member, and induce a much larger proportion of those who once become members to retain such membership by the payment of their annual dues, and the aggregate membership of the association would thereby increase far more rapidly until it should embrace a large proportion of the more active and intelligent members of the profession in all parts of our country

2 That all the proceedings and important papers of each annual meeting would be given to the profession in the columns of such a journal much earlier, and in such installments that even the most busy members would read and profit by them to a much greater degree than when receiving the whole in one volume nine or ten months after their presentation at the annual meetings

3 That the JOURNAL, under proper editorial management and ability, visiting the leading members of the profession in each state every week, would exert an efficient and most important influence in maintaining sound principles of ethics, in hastening the general adoption of a higher standard of education, both literary and professional, in diffusing sound principles of legislation on medical interests, and in promoting universal social unity in the profession

Although less than two years have passed since the first number of the JOURNAL was issued, its effect in retaining and increasing the membership is already perceptible in a marked degree The triennial list of permanent members of the association has been published by the permanent secretary, in 1875, 1878, 1881 and 1884 The lists of the three first periods indicate the progress of membership during the ten years preceding the commencement of the JOURNAL, and that of the last period the progress during the three years embracing the first eighteen months of the publication of the Journal The whole number of names of living members in the list of 1875 is 1,428 The whole number in the list of 1878 is 1,989, being an increase of 187 per annum The whole number in the list of 1881 is 2,403, or a gain of only 138 per annum The whole number in the list of 1884, which includes the first year and a-half of the publication of the JOURNAL, is 3,247, making an increase for the last three years of 281 per annum, or more than double the ratio of increase for the three preceding years The publication of the JOURNAL was commenced in July, 1883, with a list of only about 2,500 members and subscribers On March 1, 1885, the list had increased to 3,887, of whom 3,033 are entered as permanent members of the association and 854 as subscribers The copies to exchanges, advertisers and correspondents aggregate 120, making the present weekly circulation 4,007 The *British Medical Journal* was commenced twenty years since, with a supporting membership of the British Medical Association of little more than 2,000 It has now a supporting membership of about 12,000, being an increase of 500 per annum

If the same ratio of increase exhibited above should be continued, the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION would have, at the end of the first twenty years of its publication, a regular supporting membership of over 15,000 Having furnished the foregoing facts, which will enable each reader to see clearly the past progress and present status of the JOURNAL, in relation to its influence on the ratio of increase of permanent membership, I shall defer the consideration of the second and third topics until the issue of another number

RAILROAD TRAINS FOR NEW ORLEANS —We direct the special attention of the readers of the JOURNAL in the Eastern or New England States, to the important notice of Dr W E Anthony, of Providence, R I, under the head of Domestic Correspondence, on page 279 of the present number of the JOURNAL Those who desire to attend the coming meeting of the American Medical Association in New Orleans must acknowledge that the railroad companies are disposed to treat them with marked liberality, and it should insure a very large attendance

CENTRAL FREE DISPENSARY OF WEST CHICAGO — In the JOURNAL for January 31, 1885, we made some comments on the instability of medical institutions and interests under municipal or political control They related to the action of tne County Commissioners of Cook County concerning appointments on the medical and surgical staff of the County Hospital, and the appropriation of county funds in aid of free dispensaries for the sick poor

The Central Free Dispensary of West Chicago has occupied rooms in the Rush Medical College building for several years, and has received an appropriation by the Board of County Commissioners, annually, on account of the services of the Dispensary to the poor of the city and county During the last two years the College of Physicians and Surgeons, located in the same neighborhood, has also opened a free dispensary for the poor, and at a recent meeting of the County Board it was decided to change their annual appropriation from the Central Free Dispensary to that connected with the last-named college In alluding to this in our previous comments, we carelessly adopted the language of the newspaper reporters, and stated that the Board of County Commissioners had voted to move the Central Free Dispensary from the Rush Medical College building to that of the College of Physicians and Surgeons, when we should have said that the Board had voted to change their *annual appropriation* from one dispensary to the other The difference is an important one, inasmuch as the Central Free Dispensary is, and has been for several years, an independently incorporated institution, having some means for its charitable work besides the county appropriation, and is in no respect under the control of the County Commissioners, except in so far as relates to the reception of money from the county treasury It will continue to occupy its rooms in the Rush Medical College, and carry on its dispensary work as heretofore

STATE MEDICINE

SANITARY NEEDS

REMOVAL OF THE CAUSES WHICH CONTRIBUTE TO EPIDEMICS

A COMPETENT AND THOROUGHLY EFFICIENT BOARD OF HEALTH NEEDED

Address of DR W W JONES Before the Social Science Association, of Toledo Ohio

GENTLEMEN Since you have invited me to say a few words upon "the sanitary needs of Toledo, in view of the probable approach of cholera," I may commence by saying that the "needs" within our control are such as will promote health and prevent disease under any and all circumstances, with perhaps the addition of some quarantine agencies on its near approach, and more rigid sanitary inspection of emigrants and freight connected with them, also for refuge stations where cases of cholera break out among them while in transit, so that they can be isolated from the healthy

Prevention of Disease —It is the modest pretense of sanitation that it prevents disease and mortality, hence its effects are not seen except in the good health of a people and the low rate of mortality, which does not attract attention, and comes to be looked upon as the normal condition of the municipality The causes of disease, for the most part, which it is the province of sanitation to prevent, are so obscure as to elude the vigilance of the wisest detective, and net the conditions which favor malignancy, and promote its spread when its invasion has occurred, are very generally believed to be known

These causes pertain to the individuality of the person, his idiosyncrasies, temperament, constitution, and his surroundings

The first part of this proposition requires the study and discrimination of the physician to learn his particular tendencies to disease The latter, those influences which are without, and surrounding him, and from which he cannot to a certain extent escape

It is these influences from without which make it necessary to organize a Sanitary Board and clothe its officers with extraordinary powers, in order that one careless or ignorant person may not be the means of bringing disease and death upon his innocent family or neighbors Anyone attempting to answer the question of Toledo's needs, in anticipation of any epidemic disease, would inquire, first of all Have we a sanitary organization which is entrusted with the power, and is equal to such an emergency, knowing that its success largely depends upon the knowledge, skill and fidelity of such a municipal organization

In our city we call this a Board of Health, created by a statute of the state, clothed with extraordinary powers—legislative, executive, judicial and ministerial The complex functions bestowed upon this board require for their intelligent fulfillment the highest intellectual powers and attainments, coupled with a knowledge of what is known in very many of the sciences as applied to sanitation, as well as legal discrimination enough to avoid trespassing upon the just rights of others

The necessity for such a board in cities is of somewhat recent origin, and is the outgrowth of progress in the human mind in its attempt to stay the mortality of epidemic disease

Contributing Causes —It is a well settled fact that whatever conduces to disease in any form will increase the virulence of an epidemic which may prevail for the time being In this city cases of sporadic cholera are seen every year, and nearly all such cases are recognized by physicians as one of the forms of intermittent fever or ague So in an epidemic of the same disease (cholera) many of the cases commence as an attack of that disease

Some of the causes which produce disease in summer are heat, and extreme oscillations from heat to cold, impure water supply, poor or defective food, overcrowded and poorly ventilated apartments, animal and vegetable filth, defective drainage, and escape of noxious gases which contaminate the atmosphere Some of these causes require, for their inspection and finding out, a class of men with more knowledge and fidelity than is usually found in the ordinary sanitary policemen and inspector While a man may be a very good policeman to watch over your property and protect your person, he may be so ill qualified to observe causes of disease as to tread over them without notice

In ordinary times when health is the normal condition and disease the exception, a street commissioner may perform the duty of health officer and sanitary inspector, and the functions of a Board of Health may be exercised by persons elected for other duties without exciting any just comment

But when an epidemic like cholera invades a community, there comes a frenzied demand for that kind of help upon which reliance can be placed, that all will be done which skill and knowledge can accomplish

Our whole sewerage system needs to be inspected and its defects remedied Many years ago it was discovered that the catchbasins leading into the sewers of the lower part of the city *had their traps originally built wrong side up*, and I have heard complaints every year since of their offensiveness by residents and people who have been compelled to pass them We all know that sewer gases may breed the worst pestilential diseases, and that, when once set up in a family, may spread to widely separate parts of a city, through infection transported by friends and acquaintances, and cannot be easily stamped out except by the strong force which is by law reposed in a board of health

My observation and experience with cholera in this country has convinced me that it is not contagious, as that term is used in connection with small-pox, measles, mumps, and, perhaps, whooping-cough in children, but that its spread is greatly due to that undefined and undetermined influence of mind upon mind, which is more felt than seen, and which disturbs the individual by its depressant action upon his mental and nerve force

Many years ago, during our cholera epidemics, I used to see illustrations of this in the Irish emigrants whom I used to be called to attend, who, when asked what was the matter, used to reply, "Och, Doctor, I am sick at the heart"

Though this was a somewhat apt illustration of homesickness, yet when pushed a little further, coupled with the fear of some invisible foe who is to be escaped from, it becomes a panic The history of our country is full of instances where panics caused by the prevalence of epidemic disease have blasted the prospects of towns and cities for whole generations

Say what you will of miasma, of germs and other influences which are the potent factors in causing ordinary disease, they exercise less influence in the production and spread of cholera than those just alluded to as affecting nerve force Every surgeon in the late war knows that it was the scourge of the army Every physician of extensive observation has seen its blighting effects, and will concur in the statement that it is the first thing to be watched for at the bedside, and its failure most to be dreaded

People repose confidence in an army in proportion to the perfection of its organization and the firmness, intelligence and experience of its commanding officers So will a people have confidence in a board of health in proportion as it is made up of those best qualified to grapple with the intricate problems of sanitation

Cholera in 1849 —In 1849, when the cholera epidemic first appeared in this city (for we were scarcely a hamlet in 1832 and 1834 on its previous advent in the country), the common council organized a sanitary force consisting of a board of health, aided by three or four of our best citizens in each precinct of the city, whose duty it was to call to their aid such nursing and medical skill as they required for the benefit of any who needed it, and also act as a committee for house to house visitation A crown of laurel should ornament the brows of those men if living, and the highest honors be paid to their memory if dead, for they carried us safely over the pestilence, without as much as a stampede of persons or business The grass never grew in our paved or other streets, as in a sister city from a human panic, and we are now enjoying the reward which accrued from the courage and fearless exposure of those men who battled the scourge of 1849 in this city

Epidemic Panics —The more ignorant, superstitious and poor the population of a city, the more liable it is to become panicky and suffer from an epidemic An illustration of this happened on the east side of the river in the year 1854 That suburb of Toledo was not at that time attached to the city, and contained only about one hundred and fifty people Cholera had been prevailing in the city since May 5 (the first cases having been brought from Galena on the Mississippi river), when suddenly, about the evening of July 4 or 5, cholera broke out in that hamlet, and in twenty-four hours every house, with a very few exceptions, was deserted Over twenty deaths had occurred during that time, and as I traversed its streets in the evening, twenty-four hours after its advent, I counted a dozen coffins filled with victims abandoned upon the sidewalk

Scarcely a light to be seen in the houses, they had been abandoned, and their occupants had fled to the farms in the rear, and the towns up the river, where the tales they told and the panics they created caused the death of hundreds of people The picturesque and thrifty town of Perrysburg lost many of its most prominent citizens Early in the course of the epidemic, Dr Robinson, one of the best physicians of that town, sent for me, and when I reached his bedside about eleven o'clock in the evening, he was dying I can never forget the words he addressed me, "Doctor, I have said much about the want of skill of you doctors of Toledo, because you fail to cure cholera, and let so many people die when there was no need of it I wish now to say that I take it all back I have seen and treated it, and my patients have all died I am dying myself from it, and have no wish to live longer, you can do me no good, the town is full of cases of that disease, go with Dr Peck, and see if you can do them any good" I worked the balance of the night among the terror-stricken inhabitants, making house to house visitations with Dr Peck, and returned to the bedside of my medical friend at the dawn of day, but his eyes had meantime been closed in death

First Case of Cholera in 1854 —The following extracts, from my clinical note-book, of the first case of cholera occurring here in 1854, illustrate the depressing influence generally found accompanying cases of cholera

Miss ——, aged 20 Arrived in this city on the afternoon of May 3, 1854, in company with an uncle, Wm H Hall, Esq , an attorney of this city, from Galena, Ill Had been where cholera prevailed on the Mississippi river, and a lady had died of it at a hotel in Galena, where they had stopped She told me that she had been considerably alarmed on the way here, and was afraid she would have it, and it had greatly worried and prostrated her

"I first saw her at 9 A M , May 4 She had no perceptible pulse at the wrist, extremities, tongue and skin cold, voice husky, fingers and lips blue, had had watery discharges every few minutes since 2 A M , with occasional vomiting and cramps in the muscles of the extremities, died at 12 30 M

What a Board of Health should be —In the organization of a board of health, it is not necessary or desirable that it should be made up exclusively of physicians or sanitarians An attorney who can guide the board amid the pitfalls of legal opposition, an engineer who understands the best means of overcoming those physical causes which promote and spread disease, and the sagacious property owner whose pecuniary interest prompts him to act for the best interest of himself and others like him, are as indispensable as the most accomplished sanitarian All the members of this board should be imbued with that zeal for the cause of humanity which belongs to the just and fearless, and having this accomplishment, petty or partisan schemes will find no favor in its councils, and no fears need be entertained that its individual members will not soon acquire (if they had it not before) the sanitary knowledge which will enable them to accomplish the expectations in their appointment

The sanitary needs of Toledo, as well as every other city, whether in times of health or sickness, prosperity or adversity, is "a live Board of Health," such as the statutes of the state contemplate The original forms for their appointment by our municipal code have been changed from time to time to suit the changing phases presented in the life of the different municipalities, their exigencies and their needs, and the views of legislators for the time being These changes have principally related to the appointment of members of such boards In some cities these appointments are made by the council, in others elected by the people In our own, its functions are exercised by a police board All of these modes of appointment at one time or another have been found to be so objectionable as to invite change

How constituted My own opinion is, that the nearer you can get the appointing power to individual responsibility, the nearer perfection such an organization will approach If asked my plan, I would say, put the appointing power in the mayor or presiding resident judge of your common pleas court, whose reputation would be at stake in appointing fit advisors in life and health Such a plan may at first strike one as being objectionable While I admit that it may occasionally prove so, yet all other plans so far tried in this state have been found wanting in one municipality or the other, and sometimes, in attempting to better them, have made them worse A knowledge and history of the sanitary legislation of the state shows that some has had its birth in supposed partisan necessities, much in needed reform, and more in a desire to improve the physical and organic welfare of the people Some of its wisest and most efficient provisions for preserving the health of the people of the state (and which I have never noticed in the laws of other states) have emanated from sanitaries of this city, and yet we have never had a special sanitary club to aid, or spur each other on in the business of preserving and propagating the knowledge of how to preserve health, which the most obtuse must admit is worthy of the highest aims to which the individual can aspire A knowledge of this science, the most important for the happiness and moral good of the race, is not even taught, in its elements, in the public schools A moiety of this knowledge would deliver our people from the imposture practiced upon them by the innumerable horde of quacks who infest our city and state only to sponge out the lifeblood from a confiding people

"Life is short and art is long"

Apply the latter to sanitary science, and some appreciation of the magnitude of the subject may be perceived The ever changing phases of human life in the individual, in the community and in the nation, from its infancy to maturity and decline, the subtle influences which produce disease, blast the hopes and bring sorrow and pain such as makes life a burden unto very many of our race, agencies which affect innocent children, mature age and embitter the decline of life, are all comprised in a knowledge of sanitary science

Only the first steps in the long ladder to the goal for which boards of health are organized can be trod in one generation, and one may reasonably fear that a glimpse within the veil where the day is all sunshine will never be permitted to mortal eyes

Few men can appreciate the benefits to be derived from an efficient sanitary organization in both city and country, and yet all men ought to realize it when medical bills are presented

This city furnishes support to more than one hundred physicians and their families, when they have any It is safe to say that their least average cost to the people per annum is $1,000, making an outlay of $10,000 for medical services, besides supporting forty retail drug stores, not to speak of the hosts of traveling and other quacks whose advertisements crowd the newspaper columns and billboards to the detriment of respectable reading matter

Seeing the indifference which exists even among our most intelligent people in regard to life and health, there is great danger that philanthropists and sanitarians will lose heart and give up the self-imposed task of urging measures which are of the most vital consequence, not only to this, but of unborn generations

Many years ago a duty was imposed upon me by the Ohio State Medical Society, of visiting and urging upon the general assembly of the state the propriety of establishing a state board of health While the members of the Legislature heard me patiently and seemed to acquiesce in my views, I found, upon sending detectives to ascertain what they really thought about it, that their answer was, "That fellow wants an office "

Satiated with disgust at the obtuseness of these legislators, and thoroughly convinced that to be one of them, even if I could, would be degrading by mere association, I resolved to return to my own city and spend what influence I possessed among a people who could appreciate honest effort for its own sake, and whose estimation of the benefits of sanitation was not limited by the desire to promote this or that man to a political office

Thanking you, gentlemen of the club, for the courtesy you have extended in asking me to address you, allow me to express the hope that a new interest may be awakened in the city that shall result in lasting benefit "

At the conclusion of the paper, a lengthy discussion was entered upon, participated in by a number of medical gentlemen and others The sentiment was substantially universal that what is needed is a health board composed of men in whom the people will have confidence—that such confidence is the best possible protection against a cholera epidemic—and finally a motion was unanimously adopted appointing Dr W W Jones, Hon Guido Marks, Wm Baker, Esq , and Hon Richard Mott, a committee to prepare a bill for presentation to the legislature providing for a board of health independent of the police board

The association thanked Mr Jones for his able address, and it was announced that at the next meeting Wm Baker, Esq , will read a paper on "The Benefits Arising from City Parks "

FOREIGN CORRESPONDENCE.

BERLIN LETTER.

Berlin, Feb 10, 1885

Medical Notes—Syphilis — Pneumonia — Typhoid Fever —The late lesions of syphilis are treated here with full doses of potassium iodide, from ʒss to ʒij at a dose Such an amount as this must be given in *full* dilution and preferably after eating There must of course be always more or less danger of iodism, of fatal swelling and irritation of the mucous membrane, and at Prof Fraenkel's clinic, not very long ago, a man presented himself with œdema of the glottis brought about by such heroic treatment Its toleran ce depends very much upon the idiosyncrasy of the patient, and also, I think, upon the extent of the disease I have seen it written somewhere that the ability to bear such doses without inconvenience was a sure indication of general infection, and from a somewhat extended observation of many hundreds of cases in Berlin, I am inclined to believe that this is a fact Only exceptionally have I noticed any derangement of the stomach following even the largest doses, when such were given in full solution One hundred and twenty drops of a saturated solution in a goblet of water will rarely distress the individual Gummata of the tongue, intractable syphilides and syphilitic paralyses yield more surely to these large doses than to any other plan of treatment I know of one case healed experimentally with chlorate of potash pushed to its physiological effects, and whether *post hoc* or *propter hoc*, I know not, but the patient certainly improved rapidly and surely Small doses of potassium iodide, say two drops of a saturated solution well diluted, and taken *very* slowly, is one of the best things I know of for congestive headache In the earlier stages mercuric bichloride given hypodermically is much used in Dr Lassar's polyclinik, together with massage Pneumonia is severely let alone so far as medicines go Nature is not handicapped with nostrums, and is supplemented by the physician's art only when her own powers become weakened by watching Careful nursing, judicious and ample feeding and proper ventilation are insisted upon Careful nursing means a constant surveillance over the movements of the patient, so that he may not improperly expose himself, the administration of food and alcohol (when demanded) at certain regular hours, and an hourly observation of pulse and temperature, so that the attending physician may be notified of the least alarming change Starvation diet does not obtain many friends Fevers eat and consume tissues, and the waste must be compensated for by full feeding not over-feeding or improper feeding, which may set up gastric disturbances, but just such as the system requires The intervals between feeding should not be too long, and the restless patient will require quite as much during the night as during the day Pulmonary inflammations are recognized as due to causes quite different from those which until lately possessed the German medical mind, and with these new views of pathology and etiology have come new ideas of treatment, or rather a belief in no treatment at all, and a reliance upon hygienic detail and nursing The disease has a tendency to cure itself, if the patient be placed in the best possible condition for nature to assert her powers This is also true of typhoid fever An expectant plan is very generally pursued The alkaloid *antipyrin* (dimethyl-oxychinin), first introduced by Prof Filehne, of Erlangen, was quite the rage for a time, but interest in it is fast dying out, and clinical experiences do not sustain the hopes that were based upon physiological experimentation At best, fever is but a symptom of a general condition, and it advances or retrogrades just as the primary cause becomes better or grows worse The cold pack works admirably over here in excessively high temperatures, and the patients always seem to feel better after it has been used The iodine treatment has also shown itself to be of little reputation In those conditions in which the high temperature may be due to irritability of the nervous centres, the pack soothes and controls, and is not followed by any of the distressing symptoms which sometimes attend the administration of quinine, antipyrin, etc Ulceration of Peyer's patches is guarded against by *absolute* rest by non-irritating food, and by careful attention to the bowels Claret is given in full quantities, also other kinds of wine, milk, and good bouillon Medicines are only given when certain well-defined symptoms seem to demand them The matter of *rest* is a most valuable consideration in the treatment of any disease, and the surgeon would be less frequently called upon to operate, the physician to prescribe, or the specialist to theorize if it were possible to carry out such a regimen in all of its details in every instance *Rest, air* and *food* supply the normal demands of a normal body Every day the science of medicine is emancipating itself from traditional fetters and superstitious vagaries A walk through the wards of Charite would fill the old-fashioned practitioner with grief, and he would have a poor opinion of Berlin as a medical centre Real's treatment of typhoid fever by full doses of bismuth subnitrate is not a success Koch's views as to the causation of acute miliary tuberculosis and chronic phthisis are now receiving considerable attention, especially from Drs Biedert and Siegel Koch, you remember, advanced the theory that when small numbers of the bacilli entered the lungs repeatedly, chronic phthisis resulted, but when a large number suddenly entered the lungs we had a miliary tuberculosis This theory, highly ingenious though it may be, cannot stand alone, it needs a long line of corroborative proof and parallel investigation What coincidence limits the number and governs the entrance of the bacilli into the lungs? What is the peculiar idiosyncracy which makes the disease so rapidly fatal in some people? Why is it that some will escape infection even when the conditions for the entrance of the bacilli into the lungs are those most favorable? Biedert and Siegel maintain that phthisis is not an infectious nor a contagious disease, and that the lungs must be already diseased before the bacilli can produce the characteristic changes In a perfectly healthy organism it is questionable whether the bacilli can produce such changes Biedert and Siegel's investigations are elaborate and far-reaching, the abundance of material at their disposal gave them every opportunity to vary their researches, and their conclusions will be read with interest Of course, the bacillus, when found in the *sputum*, is *absolutely* pathognomonic Such microscopical examinations are made every day in Fraenkel's, French's and Senator's clinics and in the offices of private practitioners But the shape of the bacillus is *not* always the same, neither is the relation of the amount of bacilli to the lung affection as yet thoroughly understood The theory that consumption depends upon the presence of bacilli *only*, cannot stand without a very much larger burden of proof than we yet possess At present it seems to be held by medical authorities that heredity and extraneous influences impress certain conditions favorable to infection upon the lungs Dr Anfrecht, of Magdeburg, believes in the identity of croup and diphtheria, and thinks that local applications are injurious He uses simple cold compresses and a gargle of chlorate of potassa

H R B

PARIS LETTER.

PARIS, Feb 13, 1885

At a recent clinical lecture at the Hotel Dieu, Prof Germain Seé thought proper to expatiate on the diagnosis, or rather the characteristic appearances of the eruptions of the various eruptive fevers, as he found that at the examinations for the doctorate, the candidates generally manifested an unpardonable amount of ignorance on the subject Prof Seé pointed out the necessity for using the clinical thermometer in such cases, as indeed in all caases of fever, and rendered justice to Wunderlich for his admirable researches on thermometry, which have singularly facilitated the diagnosis of various maladies which would otherwise have been enveloped in obscurity For instance, apropos of eruptive fevers, the study of the temperature of the body during an attack of fever would be indispensable, as before the appearance of an eruption the exanthematous fevers do not present any pathognomonic sign, and it is here that the thermometer would be of great service to the physician, as even after the appearance of the eruption it is sometimes difficult to differentiate these fevers one from the other It must, however, be borne in mind that the elevation of the body temperature is not altogether proportional to the intensity of the eruption; in other words, the study of the *temperature would be of value only by the course of* the latter, and not by its maximum. For example, in small-pox the initial temperature rises promptly from 98.6° F. to 102.2° F., and on the second day in the evening, or forty-eight hours after, when once the eruption appears, the defervescence is complete, and the *variolous eruption follows its course without* the thermometer indicating an increase of heat. The thermometer, however, rises again at the stage of suppuration.

Scarlatina begins much in the same way as variola; that is, brusquely; but the body temperature rises much more rapidly, and reaches its maximum in twenty-four hours, and it is then that the eruption appears. But it often happens that the scarlatina passes unperceived—either that the eruption is so pale that it escapes notice, or it may be completely absent (scarlatine fruste of Trousseau); or, finally, it may be very incomplete or fugitive; and yet these sorts of scarlatina may give rise to the accidents observed in regular scarlatina; such, for instance, as Bright's disease, albuminuria, and children will be the more exposed to these complications, as under the above circumstances the necessary precautions would be neglected. This error may be avoided if care be taken to attend to the body temperature. At the commencement it may be that there is fever; it is of short duration, lasting twenty-four hours, but the thermometer reaches, in this lapse of time, 104°F., and no other malady but scarlatina attains this maximum in one day. In any case, Professor Seé would recommend that no patient suffering from scarlatina should be allowed to go out of doors before the twenty-fifth day, *for* statistics have shown that, nine times out of ten, it is between the twelfth and the twenty-third day that scarlatinous nephrites are declared. It must be borne in mind that in scarlet fever the thermometer remains at its maximum during four or five days, and that the defervescence takes place about the seventh *or* eighth day; the decline is slow.

Measles commences slowly and insidiously; its course is therefore essentially different from that of scarlatina and variola. Whilst in variola the temperature attains its maximum rapidly and in a continuous manner, in measles there are remissions in the morning, so that during the first two days the physician may be led to believe that he has to do with typhoid fever, but the doubt is dissipated the third day, or when the thermometer marks over 102.2° F., as the body temperature in measles rarely goes beyond this figure. The following is, then, what may be observed in measles. At the commencement there is little fever, but it is not continued; it has the character of remittent or catarrhal fever; then comes on a transitory attack, preceded by shiverings, about the third day; the thermometer falls in the morning from the fifth to the sixth day, and then the eruption appears at the end of this or during the following day. The maximum of the temperature may therefore be noticed from the third to the fifth day, and the defervescence from the seventh to the eighth day. The relative differences between the eruptions are as follows. In scarlet fever, when once the eruption *appears, the thermometer rises or remains stationary.* In small-pox, after the appearance of the eruption, the thermometer falls rapidly, to rise again on the eighth day, if there is any suppuration. In measles, after the eruption, the thermometer rises again one day, then falls, but slowly.

A. B.

DOMESTIC CORRESPONDENCE.

CINCINNATI LETTER.

The unparalleled good health which blessed our city and cursed our physicians for 20 months following the great flood of Feb. '83 was broken last October by an epidemic of measles. In January '84 there were 5 cases of measles *reported* in the city. February 2, March 3, April 4, May 6, June 13, July 10, August 6, September 6, October 104, November 323, December 355; Total 837. Of deaths there were none till July, when one was recorded, August 1, September 1, October 12, November 23, December 31; total 69—one in 12.13 of the cases reported died. The registrar of vital statistics, however, is authority for the statement that only one case in 3 is reported. Many physicians neglect to report them, although such neglect is finable. Many children are treated by home remedies, or a physician being called for the first child sick in the family, those subsequently ill are treated with the same remedies which cured the first. On the contrary, there were reported 250 deaths during the year, measles having occurred 2 or 3 weeks before the death. As to the history of the spread of the epidemic throughout the city. In January, 1884, it was found in the eleventh ward, starting at a schoolhouse. In March it extended to the seventh ward, immediately south. In April into the thirteenth, west of the eleventh. In June in the twelfth, north of the thirteenth and west of the eleventh. In July it appeared in the tenth, south of the thirteenth and west of the seventh. September found it in the third, east of the eleventh and seventh. In October it appeared with great virulence in the twenty-first ward, in the extreme western part of the city, apart from the wards previously implicated. In November and December it was found in all parts of the city. The river wards, known as the flooded district, escaped with comparatively few cases. The great bulk of the cases were in the region known as "Over the Rhine," inhabited by Germans, and the most thickly populated part of the city. Since the first of the year the epidemic has decreased very rapidly. The epidemic was considered to be of so much importance that it was given two meetings at the Academy of Medicine.

The first meeting was given up to the discussion of the subject opened by Dr. J. C. Cleveland. Dr. Forcheimer reported a severe epidemic which visited the children's hospital. A child was brought in supposed to be suffering with cerebro-spinal fever, which afterward developed into a fine case of measles Seventeen cases followed, nine of which proved fatal The enormous fatality was due, he thought, to the bad condition of the patients at the time of the attack All of them were confined to the bed with various diseases of more or less gravity One of them was brought to the hospital in a moribund condition Dr Haarf at the next meeting reported "measles and scarlet fever occurring simultaneously in his own family" His five children contracted measles, and three of them had scarlet fever also, one having had scarlet fever before The interesting part of it is that his wife, who was pregnant at the time, gave birth to a child in an adjoining room to the children, both being heated by the same stove and she being attended by the husband and father, who also attended the children After all this courting of trouble, as it were, the wife and mother made a good recovery

One of the remedies used was the hydrochinon, of which the doctor and also the president, Dr Wenning, spoke very highly They praised it for its absence of taste, its ready solubility in water, its diaphoretic and antipyretic effect The epidemic of measles just closing has been remarkable for its complications, pneumonia, broncho pneumonia, bronchitis, entero colitis and ophthalmia were those generally noted

Dr G A Fackler, the Secretary of the Academy of Medicine, reported at the last meeting an interesting case of meningocele occurring in a child whose mother during pregnancy was subject to attacks of hysteria

Dr E S McKee, at a recent meeting of the Academy, reported a case of "repeated miscarriage successfully treated with chlorate of potassium" The patient had ten successive miscarriages in sixteen years of married life, from two different husbands, occurring from the fifth to the eighth month, no single child coming to term In the eleventh and twelfth pregnancies she was put on chlorate of potash, from fifteen to thirty grain doses, and both children were brought to term and delivered healthy One died in infancy, the other still lives This paper was extensively discussed

In the year just past, there were 6,609 deaths in the city, 5,667 were residents, 538 were non-residents, 404 were still births Births recorded, 8,363, marriages, 1,814

There were 10,646 patients treated by the district physicians during the last year These received 15,795 prescriptions, at a cost of $4,733, average cost of prescription 31¼ cents Births recorded, 8,363

A case of rodent ulcer of the face occurred recently at St Mary's Hospital under the care of Dr J C McMechan It occupied the whole side of the face, implicating the orbit and the greater part of the nose It reached within two lines of the inner canthur of the only remaining eye The doctor cauterized the wound, and especially the cutaneous edges, with the galvano cautery Since this there has been no advance of the disease and the patient is doing well

Of cocaine we do not hear so much now as before the holidays Then we heard of little else from our ten ophthalmologists

Our medical colleges are not so well patronized now as formerly The decrease this year has been fully 30 per cent This is laid at the doors of politics, hard times and overproduction A week from now both our colleges will have had their commencements The class in the Ohio will probably number seventy, in the Miami about thirty, that is unless there is a larger per cent of refusals than usual A medical school in a neighboring city, which has a so-called summer session, has sent out its regular annual bid asking the students who do not pass here to come there and take their diploma One who failed to pass here last year, being unable to tell the professor of anatomy how many teeth or how many ribs he, the student, had, went to our neighboring city, took his diploma in June, came back here and settled The spring courses in the colleges here will commence March 15 and continue to the end of April They are conducted exclusively by the adjunct faculties, and are on the recitative and practical order Clinical lectures are conducted in the Good Samaritan and Cincinnati hospitals

There is rumor upon rumor that we are to have a new weekly medical journal The child has been christened "*The Argus*," and an editorial father found for it, Dr J M French, but the delivery is tedious If born, 'tis to be hoped that it will be more vigorous than some of its class we now have

There is rumor upon rumor that we are to have a new medical journal The child has been christened "The *Argus*," and an editorial father found for it, D J M French, but the delivery is tedious If born, it is to be hoped that it will be more vigorous than some of its class we now have

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NEW YORK LETTER.

NEW YORK, Feb 27, 1885

A scientific meeting of the Fifth, or Southern District Branch of the New York State Medical Association, was held in Brooklyn, on the 25th of February It was the first meeting of one of the five subdivisions into which the parent association was organized at the annual meeting in November last, and it was an exceedingly successful and pleasant gathering In his brief opening address the President, Dr J C Hutchinson, of Brooklyn, said that the desire of the friends of medicine represented in it was ultimately to arrange for frequent meetings in Kings and other counties of the district Having alluded to the remarkable process of the state association, which was joined by more than 500 members during the first year of its existence, he went on to say that mere numbers was not the object The aim was to get the best material for effective and congenial work on behalf of the best interests of the profession and of the public One of the great features was freedom from legal control, or complications The association wanted nothing to do with the legislature, or any other political body It desired to be free to admit or reject whom it pleased

At all times ready to give information, when requested, to the civil authorities, executive, legislative or judicial, it still wished no official connection with them, for medicine was a voluntary, self-independent profession, governed by its own rules At the same time, toward all our brethren of a like faith, but of a different policy, all the Fellows of the association, he knew, would have only the kindest feeling Men of culture and honor could differ without anger or loss of mutual self-respect He was persuaded, he said, in conclusion, that as the branch association completed its work of organization and engaged in the professional objects and dealt with the subjects germain to the healing art, their union would be found pleasant and profitable, and one crowned with the approbation of their consciences and with beneficial results to humanity, to science and to themselves

The first scientific paper was an elaborate one by Dr J W S Gouley, of New York, on "Contracture of the Bladder, Consequent on Cystitis" In giving an account of the exciting causes of cystitis and contracture, he stated that ordinary polyuria from nervous influences, when maintained for any length of time, was likely to produce these affections equally with conditions of the urine in which the specific gravity was very high, as in diabetes The explanation was, that when the urine was of low specific gravity, the epithelial cells of the mucous membrane of the bladder, by an endosmotic process, became swollen and then died and were cast away, while, when it was of high specific gravity, the epithelial cells, by an exosmotic process, shriveled, died and were cast away The final result being the same in either case, the denuded mucous membrane suffered constant irritation from the urine in contact with it In vesical trouble from enlarged prostate, he claimed that there was universally hypertrophy of the bladder, instead of atrophy and atony, as stated by many authorities, and that although he had witnessed a very large number of autopsies, he had yet to see the first case in which there was atrophy

One of the causes which he mentioned was the use of ether as an anæsthetic, and he said he wished to allude to this as a warning to surgeons In thirty cases out of one hundred operated upon for hemorrhoids, he had found that there was contracture of the bladder, originating in the effect caused by the ether inhaled at the time of operation The action of this agent was twofold—first, upon the kidneys, producing polyuria and, second, on the urine, which it rendered irritable in character There was apt to be retention of urine from tonic spasm of the neck of the bladder, and hypertrophy with chronic contracture finally resulted In order to avoid these unpleasant consequences, he advised that a patient about to undergo an operation should always be required to evacuate the bladder immediately upon taking ether, and again, also, as soon as he recovered sufficiently from the influence of the anæsthetic

Dr Austin Flint made some extended remarks on an interesting case of aneurism of the arch of the aorta, in which the difficulties of diagnosis were unusually great, and also presented the specimens from the same When he saw the patient, in consultation with two Brooklyn physicians, he found some difficulty of respiration, but this was not very great at ordinary times There was, however, distinct stridor, though careful laryngoscopic examination had failed to detect any abnormal appearance in the air-passages When an examination of the chest was made, it was found that the respiratory murmur was notably feeble on both sides, and that it was a little weaker on the left than on the right This was all that could be detected at that time, but before he had left the house he was summoned to see the patient, who was suffering from a paroxysm of the most intense dyspnœa This was more marked in inspiration than in expiration, and was so aggravated in character that it seemed that he must expire at any moment In about half an hour, however, he had recovered from it, though within thirty-six hours afterward he really did die in a similar paroxysm During these paroxysms, to which the patient had been subject for some time, the radial pulse and that of the carotid artery on the left side were found to disappear altogether

In considering the morbid appearances found after death in connection with the symptoms observed during life, Dr Flint showed that the ascending, transverse and descending portions of the arch of the aorta were all very much enlarged, while there was marked atheroma of the part present Under the circumstances he thought it quite remarkable that a loud, bellows-like murmur had not been caused For the absence of the left radial and carotid pulse during the paroxysms, the unusual distension of the aorta and the consequent pressure on the left subclavian and carotid arteries were sufficient to account In addition to the general enlargement, there was a pocket, about half an inch in diameter, which protruded directly into the trachea, and which must have caused, of course, more or less obstruction to respiration It was evident that, if life had been prolonged, the aneurism would have made its way into the trachea and eventually ruptured with fatal result

Dr Flint thought that there could be no question that the paroxysms from which the patient suffered were due to the effect of pressure on the recurrent laryngeal nerve, but it was an interesting question whether the urgent dyspnœa noticed was the result of paralysis of the nerve or of spasm of the glottis It was more rational to suppose, he said, that pressure on this nerve would give rise to paralysis rather than spasm A question of interest in connection with paralysis of the abductor muscles of the glottis, which he believed to be the real source of trouble, was, Is such a paralysis on one side sufficient to cause death? It seemed to him probable that it was not, but when one side was affected there was a strong liability, through some sort of sympathetic or reflex action, the exact nature of which was not understood, of the paralysis becoming bilateral

The last paper, on Oleate of Cocaine, was read by Dr E R Squibb, of Brooklyn The results of the application of the aqueous solution of cocaine to the skin for the purpose of producing local anæsthesia had, he said, proved very unfavorable. The chief difficulty in its application had appeared to be the difference between the epithelium of mucous membrane and the epidermis, and the impermeability of the latter. There was no possibility of finding a liquid which would pass the epidermis with the same facility as the watery solution passed the epithelium; but it had occurred to him that if a preparation could be made which would pass one-seventh as fast, and if it were made seven times as strong, the conditions would seem to be met for making as successful applications of cocaine to the skin as to the mucous membrane, with the exception that more time would be required, of course, in order to secure the action of the drug. He then gave an account of the various steps by which he had arrived at what he believed to be the most available preparation for use, viz. one containing 25 per cent. of cocaine, in an excess of oleic acid, a strength just about seven times as great as that of the ordinary 4 per cent. aqueous solution sold in the shops; after which he narrated a considerable number of experiments which he had performed for the purpose of testing the anæsthetic power of the oleate when applied to the skin. He stated that the conclusion thus reached was, that the hope which had been entertained that cocaine employed in this way might prove a useful anæsthetic, had been completely disappointed. Except for certain special applications, as, for instance, to the glans penis, anus, etc., and possibly for the relief of trigerminal neuralgia, in which it had not yet been tried, the oleate of cocaine had to be pronounced a useless preparation.

After the scientific proceedings, a very interesting portion of which was the discussion which followed each of the papers, a bountiful collation was spread in an adjoining room. P. B. P.

TREATMENT OF THE INSANE.

EDITOR JOURNAL AMERICAN MEDICAL ASSOCIATION.

Dear Sir:—The question of the proper treatment of the insane is one which has been ably discussed by specialists and others supposed to be particularly familiar with the subject, and should, therefore, be warily spoken of by the non-expert. But there are some things which common sense teaches where (alleged) science is dumb. Some of these things are likely to strike one with particular emphasis upon his first visit to an institution for the care of insane. The realization of facts is peculiarly vivid, and one receives an impression of the condition of things which is, as yet, not deadened by constant contact. Perhaps such impressions are fanciful and born of sentimentalism; if so, the ever alert and practical boards of charities, etc., will see through their flimsiness and brush aside their sophistries, and they will melt quickly away before the blazing sun of science; if they are real, publicity is desirable. I had the unfortunate occasion recently to take to an asylum for the insane a young man suffering from mental derangement, though quite sufficiently intelligent to understand the cause of his condition, the necessity for its alleviation, and to express a desire to go to the asylum for its treatment. Upon his arrival there he was placed in a ward with some forty or fifty others, none of whom were more intelligent than he, many of whom were much less so, and locked into their company to enjoy the benefits and felicity of their refining and elevating intercourse and conversation. Undoubtedly locks and bolts are necessary in the vast majority of cases, but discrimination is desirable even in insane hospitals. To one who goes there of his own will, and for an understood purpose, conscious of his mental defects and anxious for their relief, they are not only useless, but abhorrent, and tend to destroy what little self-respect and self reliance the weakened mind is capable of feeling. Whatever his other needs may be, a patient of this kind certainly *does not* need the influence of surrounding minds as deficient, or more deficient than is his own; and to be confined, virtually a prisoner, with his days and his nights a constant routine of alleged pleasures and certain contact with his mental kind, many be a scientific way for the treatment of some insane, but practically I apprehend it is a pitiable failure so far as results are concerned. I will only trouble you to speak of one more point, and that is, the fact that asylum managers should be men of large experience in the general treatment of disease. I hold that one, whatever his natural abilities, cannot graduate from college a full fledged specialist in the treatment of the insane. When we remember the study and research which has for years been devoted to this subject, its importance as a public charity, its relations to the unfortunate beings who made its existence necessary, it is nearly a mockery to find at the head of one of these institutions, containing 500 or 600 people, a man of small experience in years, absolutely none in the general practice of medicine, and, as I am credibly informed, only three or four years a graduate of a medical school. Comment would appear to be superfluous, but as the craze now is for specialism in medicine, this institution seems to afford its realization; is, indeed, its utopia.

I am, yours truly,
J. B. STAIR.

DETROIT, MICH., Feb. 17, 1885.

TO THE EDITOR OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

In your issue of February 14, there is a review of the 2d edition of my "Manual of Bandaging," signed by "E. W. A." As this review contains statements that are far from the truth, I ask you for the liberty of replying.

The reviewer starts with the assertion that the book "is full of references to charpie, plumasseau, gateau, boulette, bourdonnet, cataplasma carbonis, and other strange and barbaric things which modern surgery has no use for."

In reply to this charge, permit me to say that on just *three*, no more, pages of the book, where their definitions and descriptions are given, do these terms occur; hence this statement of the reviewer is decidedly untruthful. Neither was I aware before that such pharmaceutical terms as "cataplasma carbonis," "charpie," etc , were "barbaric," since these terms are found in all our standard works upon pharmacy and surgery

Another misstatement is the following "The preface informs us that the work has been used in medical colleges, *but there must be some mistake about this*" (Italics mine) As the reviewer is so ready to assert that I was mistaken when I wrote this statement for my preface, I would refer you, to confirm *my* correctness, to the catalogues of the two Schools of Medicine at Ann Arbor, Mich It is not necessary to name others, as I might do, in order to show the incorrectness of *his* statement

As to the assertion "that a student who should make this manual his authority would be a veritable Rip Van Winkle," it can be best answered that the very day your *Journal* was received an order came *from a Chicago house for ten* of these "Rip Van Winkle" books, this being the *third* shipment of them to your booksellers this winter, also, just a short time previously, fifteen copies were ordered by the house surgeon of Mt Sinai Hospital, New York city, for their nurses, that one edition of the book has been sold, and that the second is now nearly exhausted

As to the fault found because I used scientific terms to name a bandage, I would say that *only* anatomical terms are made use of, and I do not hold myself responsible for the terms other generations have given the different portions of the human system I simply made use of these terms because I supposed the merest tyro of a medical student knew his anatomy sufficiently well to know what I meant when speaking of, for instance, the "occipito sternal triangle" To aid such as "E W A," who object to anatomical terms, I have always given the *common* name of the parts covered by the bandage when such has been possible, and rarely, I am free to say, has the common name been as plainly descriptive of the bandage as has the anatomical If one knew little or nothing of anatomy, then the common name, which "E W A" seems to prefer, would be the one to use

Your reviewer also states that I purloined or compiled my Manual from "one or two little works on bandaging which are still extant upon the shelves of older practitioners"

This is a grave charge, Mr Editor, and I pronounce it as absolutely false, and call upon "E W A" for the names of these "two little works"

Yours truly,

C Henri Leonard

Providence, R I, Feb 18, 1885

Editor Journal American Medical Association

Will you please notify the delegates to the American Medical Association from New England that arrangements have been made to run a special train from Boston to New Orleans for the accommodation of physicians and their families Leaving Boston on Friday, April 24, at 3 P M, Worcester at 4 20, Springfield at 6 15, arriving in New Orleans on Monday 27th, at 9 A M Returning, leave New Orleans Friday, March 1, about 6 P M The fare for the *round trip* will be from Boston, $41 50, Worcester, $40, Springfield, $38 50 Further particulars and tickets to be procured from Dr W E Anthony, Providence, R I

Respectfully yours,

W E Anthony, M D

NECROLOGY.

William Braithwaite, M D, the well-known English physician and surgeon, and the founder of *Braithwaite's Retrospect*, died recently at his home in Leeds, in his 78th year He commenced the practice of medicine in Leeds in 1830, and filled several posts of trust in the hospitals and infirmaries of that city The first number of his *Retrospect of Medicine* appeared in 1840, and has now reached the 90th volume It has been republished in America for several years, and is as widely-known and valued here as in England The publication will be continued under the direction of his son

MISCELLANEOUS

Micro organisms and the Germination of Plants —M Duclaux has recently sent a communication to the Académie des Sciences on "The Germination of Plants in Soil Freed from Micro-organisms" He chose for his experiments the Dutch pea and the haricot bean, the first of which has its cotyledon in the earth, the second on the surface The soil having been sterilized before the seed was sown, germination did not take place This soil was also covered with milk, but this was not altered Thus it seems that it is essential to germination that there be micro-organisms in the earth

Mr Pasteur thus also states that he has found, by experiment on animals, that food which is free from micro-organisms cannot be digested, as they are necessary to the process of digestion

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The Massachusetts Emergency and Hygiene Association, says the Boston *Medical and Surgical Journal*, February 26, 1885, has prepared a course of five lectures on School Hygiene, to be delivered in the hall of the English High School in Boston They are "Heating and Ventilation," by F W Draper, M D, "The Use and Care of the Eyes, especially during School-years," by C H Williams, M D, "Epidemics and Disinfection," by G B Shattuck, M D, "Drainage," by Frank Wells, M D, and "The Relations of Our Public Schools to the Disorders of the Nervous System," by Charles F Folsom, M D

The Yellow Fever Microbe —The *Lancet* states that recent experiments made by Messrs Mozly and

Harrison have served to throw discredit on the conclusions of Dr Domingo Freire, of Rio Janeiro, who has been so loudly praised by the lay and medical press as the discoverer of the pathogenetic element of yellow fever, the *micrococcus xanthogenicus* According to these observers he has mistaken septicæmia in the lower animals for yellow fever, which confirms the observations of the Havana Yellow Fever Commission of the National Board of Health

"Babyhood" is the title of a new, large, double-column monthly of thirty-four octavo pages, well illustrated, full of good and practical reading matter, and devoted exclusively to the care of infants and young children, and to the general interests of the nursery It is under the editorial charge of Leroy M Yale, M D, and Marion Harland, of New York The subscription price is only $1 50 a year, and its office is 18 Spruce street It is essentially a family magazine

Fireproof Insane Asylums —The Boston *Medical and Surgical Journal*, of February 19, says Why should not Massachusetts, at least, have a law in her statute-books that no new building should be occupied as a dwelling-place for any of those in her care until a report had been made in writing to the Governor by a proper board of fire experts that it was fireproof and thoroughly provided with fire apparatus?

Cocaine Disks —Dr Joseph E Warren, of Boston, suggests that the most convenient form for using muriate of cocaine in ophthalmic practice is that of gelatine disks He has used these disks with much satisfaction Each one contains about half a drop of an 8 per cent solution (gr $^{1}/_{5}$) This is a more economical method of applying the drug than that of using a solution

The Turin Prize —The Royal Academy of Turin will award a prize, in 1886, of $900 to the author of the best work that appears between 1883 and 1886, on any subject connected with physics, chemistry, physiology, geology, geography, or statistics, or to the author of a brilliant and useful discovery This prize is open to competitors of all countries

Nephrotomy and Nephrectomy in Minnesota —Dr Berry, of New Ulm, performed the operation of nephrotomy almost two years ago, with success Dr French, of Minneapolis, performed both nephrotomy and nephrectomy in 1884, and Dr Wheaton, of Minneapolis, has recently had a case of nephrotomy

Adulterations in Quinine —Dr Cyrus Edson, of the New York Health Department, has been buying quinine at forty or fifty drug stores, and the city chemist has discovered that many of the samples are greatly adulterated In some cases the adulteration of what had been sold as a pure article amounted to 50 per cent

Drs Koch and Klein —The *British Medical Journal*, of January 31, in giving a *resume* of Dr Klein's report from India on the cholera bacillus, states that Dr Koch appears to recognize that he has not established the fact that the comma-bacillus is the cause of cholera, and that he proposes to return to India to make further investigations, at the earliest date that his duties in Berlin will permit

Cancer a Frequent Cause of Death in Horses —The *Indian Medical Gazette*, quoted by the New York *Medical Record*, says As in England, melanotic cancer is an ordinary cause of death in Bengal among gray and white horses We can scarcely drive through Calcutta without seeing animals having the characteristic globular tumors beneath the skin

The Secretary of the West Virginia State Board of Health —Governor Jackson has appointed Dr L D Wilson to the office of Secretary of the State Board of Health, *vice* Dr James E Reeves resigned

Isolation of Phthisical Patients in Austria —The Austrian Government has recently ordered that all phthisical hospital patients be isolated, and that such precautionary measures as necessary be adopted against the extension of the disease

A New Medical Journal —The *Eco Cientifico de las Villas* is a semi-monthly journal, which has recently commenced publication in Sagua la Grande, Cuba It is edited by Dr Augustin W Reyes, and is devoted to medicine and agriculture

French Microbiological Laboratories —The French Government has recently sent M P Gibier to Germany for the purpose of studying the organization of laboratories of microbiology

Professor Birch-Hirschfeld, of Dresden, has been appointed to the chair of Pathological Anatomy at Leipzig, the chair made vacant by the death of Professor Cohnheim

The annual meeting of the Louisiana State Medical Society will be held in New Orleans, on April 21, 22 and 23

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE, FOR THE WEEK ENDING FEBRUARY 21, 1885

Battle, K P, Assistant Surgeon, to proceed to Pittsburgh, Pa, for temporary duty, February 19, 1885

RESIGNATION

Heath, W H, Passed Assistant Surgeon, resignation accepted, as tendered, by the Secretary of the Treasury, February 14, 1885

PROMOTION

Kalloch, P C, Assistant Surgeon, promoted and appointed Passed Assistant Surgeon by the Secretary of the Treasury, from March 1, 1885, February 19, 1885

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

Vol IV | Chicago, March 14, 1885 | No 11

ORIGINAL ARTICLES

CONTAGIONS AND EPIDEMICS IN AMERICA

BY WM MORROW BEACH, M D , OF LONDON, O

The Address of the Retiring President Read before the Second Annual Meeting of the Ohio State Sanitary Association held at Columbus Ohio February 5 and 6, 1885

In the collation of the facts contained in this paper I have drawn from a great variety of sources The first epidemic to which I allude is one usually referred to in histories of the North American continent, and in nearly all monographs upon the subject of ancient mounds and mound-builders, in explanation of the obscurity of their origin, and the theory that the builders became extinct by a great pestilence But the first pestilence on this continent, of which we have undisputed proof, occurred among the Aborigines of the eastern coast, in 1617 How general this epidemic was remains an uncertainty, but in 1618-19 Captain Dermer, an English adventurer, wintered among the Indians, and as he coasted southward in the spring towards Virginia, he stopped in several towns that he had visited the season before He says he found many Indian towns "totally depopulated " In other towns a few remained alive, but not "free of sickness " The disease, he says, was the "*plague*, for we might perceive the sores of some that had escaped, who described the spots of such as usually die "

In a sermon preached in Plymouth, Massachusetts, by Elder Cushman, in 1620, and which was published in London, mention is made of this epidemic He says " they (the Indians) were very much wasted of late by a great mortality, that fell amongst them three years since, which, with their own civil dissensions and bloody wars, hath so wasted them, as I think the twentieth person is scarce left alive "

This epidemic spread along the coast from Naraganset to Penobscot Plymouth settlers who went to Massachusetts bay to buy corn, "found among the Indians" (in 1622) "a great sickness not unlike the plague, if not the same " The Plymouth settlers found the " bones of many who had died, still unburied "

In 1633 a "pestilent fever" carried off 20 of the Plymouth settlers, and the small-pox appeared among the Indians with great mortality It spread from Naraganset to Piscataqua, and westward to the Connecticut river

In December, 1638, a general fast was observed by the Plymouth settlers, one of the reasons for which was on account of the prevalence of "small-pox and fevers "

In 1647 an epidemic *catarrh* appeared in America There died in St Kitts and Barbadoes 6,000 each

In 1655 appeared the second epidemic of catarrh It was general in New England

In 1659 the *cynanche trachealis* prevailed

The legislature of Connecticut, in 1662, appointed a day of supplication " for the abatement of the sickness in the country" and " a supply of rain in time of drouth "

In 1666 the small-pox raged in Boston , and sickness, attended with great mortality, in New York

In 1667 the small-pox prevailed in Charlestown, Mass , with the mortality of a plague

In 1678 the small-pox prevailed in Boston, malignant diseases were general, and a blight fell upon fruits

In 1692 a malignant fever visited Jamaica and Barbadoes, upon which islands 3,000 in each perished in that year

In 1693 the fleet, under Sir Francis Wheeler, which was sent for the subjugation of Martinico, was seized with the "American plague" (doubtless yellow fever) and three-fourths of the seamen and soldiers perished

In 1697–98 an epidemic *catarrh* was general, and *pleurisy*, as an epidemic, followed in 1698

In 1699 in Charleston, S C , and in Philadelphia the *yellow fever* raged with unprecedented mortality It was called the " Barbadoes Distemper " The patients "vomited and voided blood " In Charleston the " principal officers of the government, one-half the members of the assembly, and many citizens died " This disease appeared in August, simultaneously in both places, and abated as winter approached

In 1702 the general court of Boston adjourned to Cambridge, on account of the mortal small-pox, in Boston "attended with a sort of scarlet fever " In this year the assembly of New York met at Jamaica, Long Island, on the account of the prevalence and great mortality of yellow fever in New York city It was called the "great sickness," and scarcely a patient recovered

In 1712 epidemic *pleurisy* again prevailed throughout New England , and again in 1719 it prevailed in Hartford, Conn

In 1720 the *yellow fever* devastated some of the towns in the State of Delaware, and, in 1723, in Martinico and Barbadoes

In 1723, in Rhode Island, prevailed the " *burning ague*," as mortal as a plague, and in 1728 *yellow* *fever* in Charleston, of a pestilential type, and malignant measles and epidemic *pleurisy* in portions of Connecticut and Massachusetts

Small pox was in Boston in 1730, and in 1731 in New York, as epidemics

In 1732 epidemic *catarrh* was universal in America, and the following year spread over the whole earth

In May, in 1732, appeared at Kingston, New Hampshire, a disease among children, commonly called "*throat distemper*" The disease was very malignant, with swelling of the throat, with white or ash-colored spots, an efflorescence on the skin, great debility of the whole system, and a tendency to putridity Of the first forty patients *all died* In August it appeared in Exeter, in September, in Boston, fifty miles distant, and continued to spread from place to place through that and the succeeding year, and passing to the southward it literally *stripped the country* of children Although *very infectious*, yet it spared not the most sequestered spot, without any possible communication with the sick In many families all the children died It spread westward as least as far as the Hudson river In 1737, while this *angina maligna*—for such it doubtless was—was spreading over the northern part of America, yellow fever was prevailing in Virginia, and epidemic *influenza* became universal—prevailing also in the West India Islands

In 1739 the small-pox was in New York, and the yellow fever in Charleston, followed by measles over the whole continent

In 1740 yellow fever was in Philadelphia and Virginia, followed, in 1742, by a universal epidemic of *angina maligna*

In 1743 yellow fever again prevailed in New York, and in 1745 it was in Charleston, S C In this same year a malignant *dysentery* carried off *seventy* persons at Stamford, Conn and one of the peculiarities of the epidemic was that it was confined *to one single street* In this same year Albany, N Y, was visited by a malignant fever, in which some of the patients turned yellow, and many who recovered were *left imbecile* The Mohican Indians suffered severely by the same disease Dysentery, of an epidemic character prevailed, also, in many localities

In 1747 epidemic catarrh became universal, while yellow fever prevailed in Charleston and Philadelphia

In 1749 dysentery and the "*nervous long* fever" prevailed in Connecticut, with great mortality This was probably what we now call *typhoid fever* It was then considered contagious, but there were many who had it contracted it from "the pestilential condition of the atmosphere"

In 1751 *dysentery*, in an epidemic form, and also *angina maligna*, became general, and prevailed for several years

In 1755, in one town on Long Island, but two children were left alive—all else having died of *angina maligna*!

In 1760 *pleurisy* was again epidemic in Connecticut, and in 1762 yellow fever prevailed in Philadelphia

In 1763 the Indians on Nantucket and Martha's Vineyard suffered severely by yellow fever—two-thirds of their whole number dying in that year

In 1770 angina maligna prevailed from Boston to Jamaica and West India Islands, followed in 1772 by epidemic catarrh

In 1773 measles became general, and was characterized by secondary fever and tedious convalescence, attended with excessive expectoration It seemed "that some discharged to the amount of their weight"

But the most fatal disease was the *cynanche trachealis*, or "bladder in the throat" In general there was little canker, but excessive bronchial and pulmonary secretion—very tenacious, and generally fatal In some towns but few recovered This was followed by an epidemic of *dysentery*, which was very fatal, ending in gangrene on about the third day

In 1774 *scarlatina anginosa* was in Philadelphia, and in 1775 *cynanche trachealis* spread all over the northern part of America

In 1776 epidemic *dysentery* appeared among the troops at New York and Ticonderoga, and in 1777 there were 4,000 cases of small-pox among the soldiers at Crown Point, Vermont From this time on until the close of the Revolution, epidemics of *measles*, *scarlatina* and *angina maligna* prevailed to a greater or less extent Measles, in New England, was of a very malignant character—usually of the kind called "black measles," and inclining to gangrene and putrescence My impression is that this and some other diseases assumed the putrescent type, from the habitual use of *corn bread*, the grain of which did not fully mature in New England, but more particularly the habitual use of *rye bread*, in which flour there was a mixture of "blasted rye," or ergot

In 1789 epidemic *influenza* became so general that it spread even to the solitary Indian in his hut in mid-wilderness In Philadelphia, according to Dr Rush, this influenza, in September, seemed to swallow up or absorb the prevailing scarlatina anginosa, but as winter approached it was succeeded by the scarlatina The scarlatina which was epidemic in Philadelphia in 1789, did not reach New England until 1791, before which time it had been little known in that part of the country

In 1790 *catarrh* again became universal, and in the following year it assumed a type of great severity in Pennsylvania and Virginia In this same year, 1791, yellow fever reappeared in New York, and the remittents in Philadelphia assumed a type like hepatitis, as though the disease was modified by, or was possibly a full cousin to the prevailing yellow fever of New York

In 1792 yellow fever was again in Charleston, S C, and *scarlatina anginosa* was general in New England

In 1703 in Philadelphia, appeared *influenza*, *scarlatina*, and mild *remittents*, in the order named, and late in summer they all disappeared or were *merged into* the prevailing epidemic of yellow fever The latter disease carried off 4,040 persons in that season in Philadelphia alone

In 1794 the yellow fever appeared in New Haven, Conn., and spread along the coast, but in the following season, 1795, an epidemic *dysentery* carried off more people than had died of yellow fever during the preceding season.

In 1796 epidemic *dysentery* prevailed in Wilmington, North Carolina, which seemed to merge into, or was succeeded by, yellow fever. Yellow fever also prevailed in Charleston, Philadelphia, New York city, Newburyport and Boston.

In 1797 it was again in Charleston, Norfolk, Baltimore and Providence, Rhode Island. In this same year, *pleurisy* and *peripneumonia* became epidemic in some localities. In this same year *dysentery* was experienced in Portland, Maine. Some had yellow bodies, but, as some lived as long as thirty-six days, it is presumable it was an epidemic of dysentery assuming a typhus or malignant form.

In 1798, catarrhal fevers were general during the spring months, but later in the season, the most general epidemic of *yellow fever* that has ever visited this country supervened. It appeared in Philadelphia and in Boston in June, and did not break out in New York until August. This epidemic was not confined to cities, towns or villages, but became *general*, and in New York, toward its close, many had buboes and carbuncles, as in *true plague*. In New York 2,000 died of the disease, and it was everywhere esteemed *contagious*, although it had spread without any known means of communication unless it was the pestilential condition of the atmosphere.

The "jerks" first appeared at the "Cane Ridge" camp-meetings, in Kentucky. Peter Cartwright, the eminent pioneer of Methodism, says in his autobiography, that at Cane Ridge sometimes as many as 2,000 persons would all be jerking at once. Lorenzo Dow leaves a vivid description of it as it appeared in Tennessee. In clearing off a camp ground for one of the meetings he held there, the people cut off all the saplings about six feet high, leaving the stubs *to jerk by!* His description of it at Knoxville, Tenn., bears date of 1803, but it appeared at Cane Ridge earlier. This singular disease did not seem to arise from the exaltation of religious fervor or excitement, for scoffers were often the first ones seized, and the most violently affected. The disease became somewhat general, I suppose, as I have heard my mother describe how the women's hair combs would fly, and how their hair would *crack*, like the ox man's whip! and her knowledge of it was as it appeared to her in the province of Maine, I suppose, for she was there during her childhood. The latest epidemic of it, of which I have any account, was in McLean county, Illinois, in 1866, a description of which was sent me by a personal witness at that time.

The Asiatic cholera visited us in 1817-19, and again in 1832. The latter visitation appeared at Quebec, June 8, 1832, at Montreal, June 10, and thence pursued a rapid course up the St. Lawrence to the Great Lakes and the Valley of the Mississippi. Another column of it attacked New York on the 24th of June, and in its northward march laid siege to Albany on the 3d of July. The southward column, from New York, spread down the Delaware and Chesapeake bays, reaching Philadelphia on the 5th of July, and Baltimore in the course of the same month. In November it appeared on an island off Charleston, S. C., in February, 1833, in Havana, and before the close of the year it had overspread Mexico.

From 1841 to 1846, an epidemic of erysipelas of the throat, usually called "black-tongue," spread all over the United States. It was not infrequently complicated with pleurisy, peritonitis, meningitis or pneumonia. It was generally of an asthenic character, attended in some cases with œdema of the glottis and larynx, and suppuration of the glands of the throat.

The Asiatic cholera again visited us in 1848, invading New Orleans by way of immigrant ships from Havre, France. It spread along the Mississippi river, one column marching westward from St. Louis along the great overland route to California, strewing this obscure highway with the bones of more than 1,000 of those adventurous argonauts, besides other hundreds of Indians who were attracted along the route from curiosity. Another column marched eastward from Cairo, along the Ohio, reaching central Ohio about June, 1849.

During this epidemic 5,000 persons perished of it at Kingston, Jamaica, and in that island its devastations reached to Radner, and at other points in the parishes of Port Royal and St. Andrew,—3,000 feet above the level of the sea. In 1849 it prevailed here in the city of Columbus, and among its victims were Doctors Taylor, Gard and Butterfield,—physicians who stood at the head of the profession. In the months of June, July and August, 1850, there were *fourteen hundred* deaths by it in Cincinnati alone. In Ohio the epidemic, in many localities at least, invaded the country districts. In the village of Amity, Madison county, and its surroundings, about one-fifth of the population perished within three weeks.

The deaths in the United States probably reached 200,000, and it did not disappear entirely until after 1855.

In 1853 an epidemic of *yellow fever* prevailed in the lower Mississippi Valley. At New Orleans, in June, July and August, there were over 16,000 cases in the different hospitals alone, of whom over 8,000 died.

During the time of the civil war our armies were generally spared from any scourges from epidemic causes. This seems unaccountable, especially under some circumstances—as, for instance, within the stockade at Andersonville. There, from March, 1864, until April, 1865, 49,485 prisoners were received. The largest number in at any one time was 33,006. A small stream running from west to east passed through the inclosure. The borders of this stream soon became a quagmire, and there was drawn a line around the entire inclosure, nineteen feet from the inside of the stockade. This was the "dead line," beyond which none might pass without being summarily shot. Deducting the quagmire and the space beyond the "dead line," there remained to 30,000 prisoners about seventeen square feet to the man. A small shed, covered, but never inclosed, was the only shelter ever furnished for all these thousands within the stockade That these unfortunate thousands did not fall victims to some sweeping pestilence seems to set at defiance all known laws of health, but while 12,962 were carried out for burial, 3,952 are reported as having died of diarrhœa, 3,574 of scurvy, 1,648 of dysentery, *1,268 of unknown causes,* of anasarca 377, typhoid fever 229, pneumonia 221, debility 198, intermittents and remittents 177, *gunshot 149*, pleurisy 100, bronchitis 93, rheumatism 83, varioloid 63, gangrene 63, catarrh 55 ulcers 51, and phthisis 36

At Wilmington, North Carolina, just before the war closed, 10,000 of our men were brought in from Confederate prisons They were carried by rail, and when night approached the trains were stopped and the prisoners *corraled* until morning From one train load, on the night before reaching Wilmington, 30 were left dead in the *corral* At Wilmington, those who were able for transportation were sent north, whilst the others were cared for in and around the city An epidemic—somewhat like a *typhus*—sprung up in the city For over a month the death rate was about 120 a day—60 soldiers and 60 citizens! This disease followed our moving columns out into the country At Goldsboro, Raleigh and Salisbury, within about one month I had about 140 soldiers detailed as division hospital nurses, *not one of whom*, I think, escaped from contracting the disease

As a sample of its occasional malignancy, I recall one case Dr W A Spain, of the 80th Indiana Volunteers, who had but recently gone on duty at division hospital, approached my tent one day and said, humorously, that a new nurse from his regiment was certainly a *character* The nurse had taken him into a tent, and carefully removing his shoe and stocking, had shown him an eschar reaching obliquely across his entire instep, which he said he had voluntarily made to avoid going into battle Another eschar was shown which he said was made for like purposes, on another occasion Upon which he deliberately drew on his stocking and shoe and went off to his duties I told the Doctor that I supposed the case he had described was similar to several I had seen in the hospital—and that most likely—as the eschars were old and white—they had been received in childhood,—that his temperature was probably as high as 110°, his pulse frequent and weak, and his death not more than thirty-six hours ahead The man was found on duty, after a long search for him, and my predictions found to be true as to disease,—and the second morning thereafter he was buried

In 1866 emigrant ships again brought *Asiatic cholera* from Havre to New York It spread all over the United States, and as far west as the Smoky Fork, in Kansas

The next great epidemic was of *yellow fever*, in 1878 It spread along the Mississippi valley, from New Orleans as far north as the Ohio river, and up Gallipolis It was not confined to the cities along phia- sissippi river, but invaded towns, villages and In 1, and even the laborer and his family, in the most sequestered places in Louisiana, Mississippi and middle and western Tennessee, were stricken by the disease Probably 30,000 persons, in all, were affected by the disease

During the winter of 1881–82 small pox prevailed as epidemics in San Francisco and Chicago A number of cases, in each city, that proved fatal, were in persons who had had previous attacks and were left badly marked by the first seizure

In 1882–83 it was epidemic in Cincinnati, where about 4,000 cases occurred, with an aggregate of 1,600 deaths

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I think it *impolitic*, as well as dishonorable, for sanitarians to claim too much power in the avoidance or suppression of epidemics Diseases that are *infectious* alone are always avoidable, and most diseases that are *exotic*, by proper caution and untrammeled liberty of action, can be prevented from obtaining a foothold at any point along our coast or on our borders But there seems to be a subtlety about scarlatina, diphtheria, epidemic cerebro spinal meningitis, and a few others not yet fully comprehended, and all are probably *endemic*

As to measles, whooping-cough, chicken pox and mumps, they are among our milder contagious, and should probably not be avoided at all, unless it is for the purpose of postponing an attack until a more favorable part of the season They are usually considered as diseases of childhood,—probably from the fact that they are easy of communication, and not avoided as other more deadly contagions are, and so overtake us before we are out of childhood, and, possibly, because they may be *spontaneously originated*, and then become epidemic

It was probably demonstrated to the satisfaction of most surgeons, in the late civil war, that measles could be and often was *originated* by placing soldiers to sleep on damp straw But whatever are the facts connected therewith, I look upon it as being as much the duty of parents to see their children safely through these common contagions, as to care for them through their period of teething, or to see to their education, or any other parental duty that fits them for the great battle of life It should be looked upon as *destiny* to suffer from these milder contagions at some time in life, and as fewer die of them in childhood, in proportion to numbers, than die of them after maturity, it is better to have them in childhood, when loss of time counts for nothing, and home nursing is assured, than to wait until maturity, when, if the attack be fatal, the cost of raising would all be thrown away!

That *yellow fever*, of a sporadic character, sometimes originates in the United States, is probable, but if these sporadic cases are *genuine yellow fever*, there is no evidence that any of them have ever proved *foci* for an epidemic, or have ever proven infectious at all At this age of the world, infectious yellow fever is a native of the West India islands, and epidemic Asiatic cholera a native of India

A returned missionary of the Methodist Episcopal church, Mrs Mary A Scott Badley, who had been ten years at Lucknow, told me last year that in India sporadic cases of cholera were *usual*. For instance, a wayfarer, weary, footsore and half-famished, would pluck an over-ripe cucumber from the tree and eat it, and by morning be dead of cholera as the result of his indiscretion; and yet these cases were not considered infectious or contagious, but that epidemics spread from cases occurring in crowded marts or great assemblages,—as they always do from the great congregations of religious pilgrims at Hurdwar.

But, from the careful study of most of the histories of the great epidemics of Asiatic cholera or yellow fever that have been transplanted to our continent, I think that *every one of them was preventable!*

When *once transplanted*, overcoming them or keeping them in subjection becomes quite another question, and may often eventuate in partial failure. The *materies morbi*, whatever they are, seem to become so extremely concentrated, widely and universally diffused, and *pestilential*, that even the birds of the air sometimes either disappear or die.

The safe and sure time to save property from destruction by fire is not when whole cities are ablaze, but before the torch of the incendiary is first applied.

CHRONIC HYDROCEPHALUS.

A CLINICAL LECTURE DELIVERED AT THE GOOD SAMARITAN HOSPITAL, CINCINNATI, OHIO.

BY F. FORCHEIMER, M.D.,

PROFESSOR OF PHYSIOLOGY AND CLINICAL DISEASES OF CHILDREN IN THE MEDICAL COLLEGE OF OHIO.

Reported by James M. French, M.D., Former Assistant to the Children's Clinic.

GENTLEMEN: The clinical history of this child is as follows: He was admitted to the hospital October 11, and was at that time twenty months old. The family history was that the mother, the maternal aunts and uncles, and the grand-parents are healthy; the father died of phthisis. The record of the examination, at the time of admission, shows that the child was very anæmic and badly nourished; that he had a large, square head, and that the fontanelles were still open, the protubera prominent, and the lymphatics generally enlarged. There was observed, also, a prominence of the sternum and lateral depressions of the chest. The liver and spleen were slightly enlarged, and there was a slight curvature of the spine in the dorsal region. There was slight dullness on percussion over the apex of the left lung, bronchial respiration, increased vocal fremitus, and a few râles. The diagnosis then was *phthisis in rachitico*. The child was put upon proper treatment, but without benefit. It was found that the appetite, which had been almost ravenous, began to diminish, and there were slight elevations of temperature in the evening, although there was never very pronounced fever. Never during the whole course of the trouble has the temperature been above 100°. It was further observed that the child's whole manner of behavior was becoming changed. When brought into the hospital, the child was apparently normal in his manners; he did not cry more than a healthy child would cry, he was not fretful; but he has since then become more and more fretful. Instead of sitting up on the bed with the other convalescent children, and playing with them and the other rachitic children in the ward, this child preferred to be alone. He would lie down and could not be kept up; so he was finally put into his crib and kept there. It was then noticed, upon more careful examination, that the pupils reacted in a peculiar manner. They began to react very poorly to the stimulus of light. They would no longer contract to their fullest extent, but after contracting to a certain degree, their contractility would cease.

Furthermore, as the child's head was very large when he first came under observation, we began to take measurements of it; and we discovered that, whereas, on the second of November, the head measured just 48 centimeters in circumference, on the ninth of the same month it had increased one centimeter, and ever since the circumference has gradually but steadily increased. The child has been put, as I have said, upon what we consider the proper treatment, but with no effect. He has lost steadily in weight. The bowels, instead of being loose, as is the rule in rachitic children, have now a tendency to be constipated, so that it is with difficulty that he has a passage. In other respects that I shall show you, the child has been behaving in a manner that indicates but one thing; and what that is, we shall now see.

Those of you who remember seeing the features and expression of the child some time ago, when I brought him before the class, will agree with me that he has lost a great deal since he was here before. The first thing that strikes you is the intense anæmia. The skin, instead of being a beautiful pink, as a child's skin should be, is almost colorless; it is waxy. The child is also intensely emaciated. You see, too, all the evidences of rickets, the chicken breast, the enlarged abdomen, and prominent epiphyses everywhere. But what we wish to examine especially is the head of the child. You see the peculiar form of the head. I find upon examination that the fontanelle is still widely open, and that I can feel very distinctly the sutures. Upon measurement of the head, now, I find that it is 18¼ inches in circumference, whilst the circumference of the thorax is only 14¼ inches. That gives you a correct idea of the relative sizes of the head and chest; but you must not forget that the circumference of a child's head at that age is normally somewhat greater than that of the thorax. Nevertheless, there is normally no such difference as you see here.

You notice that the child has his hands up to his head all the time; I take the hands away, and they immediately go up again. You look at the child's face and you are at once struck with the fact that it takes up much less of the outline of the head than it should. The greater part of the face extends from the eyes up; in other words, the child's head is too large. You are probably aware that an artist, in drawing a typical face, draws first an oval outline. This he then divides, by a straight line running parallel to the long axis of the oval, into two equal parts. This straight line he then divides into two parts by a transverse line through its middle, and upon this last line he places the centre of each eye Now, if he were to draw a hydrocephalic head, what would he do? He would simply lengthen the distance from the eyes to the top of the head, or the upper extremity of the oval, as I do in this drawing on the board I have had an instrument constructed for the purpose of measuring these heads It is an instrument of brass, the perpendicular rod of which is graduated to fractions of an inch, and, fitted to it, is a sliding bar that moves freely up and down The method of using the instrument is to place the upper part on the child's head, then slide this movable part up or down until it is exactly opposite the middle of the eye I then know, of course, what the distance from the chin to the top of the head is, and from the top of the head to the eye, and deducting the one from the other, I have the difference, if there is any, between the two In the case before you, the whole distance from the top of the head to the chin is 6 inches, the distance from the top of the head to the middle of the eye is 3⅜ inches, the distance from the middle of the eye to the chin is, of course, the difference, or 2⅝ inches We know then, from this examination, that the upper part of the head, the skull, is much too large in comparison to the lower part

I have just called your attention to the fact that this child is constantly sitting with both hands raised to his head, he has either one hand supporting the head and the other in his mouth, or both hands supporting the head In addition to this, he cries constantly, but another thing you will observe is that he never moves his head Upon examination of the eyes, we find, in the first place, that there is a slight amount of photophobia, and, in the next place, that the pupils do not react at all to light There is no abnormity in the position of the eye

I am particularly glad to be able to call your attention in this case to a peculiar symptom which has attracted a good deal of attention, and whose value has elicited not a little discussion It is, however, a peculiarity to which I have called your attention in connection with other cases If I draw my finger over the skin of this child's thorax or back, there very quickly comes out a red line which gradually disappears, it is known as the *tache rouge*, or Trousseau's spots

You hear this peculiar whine? The child keeps that up day and night It is interrupted only by an occasional short lapse Sometimes after a sleep the child awakes with a loud and very peculiar, shrill cry

The question now is, what are we dealing with, to what is the trouble due, and how can we explain some of the symptoms? The disease is known as chronic hydrocephalus—an accumulation of serous fluid, comparatively poor in albumen, rich in potassium salts, rich in phosphates—that is found in the ventricles of the brain, and sometimes in the subarachnoid spaces The great majority of cases that come under our observation are of that class in which the fluid is found only in the ventricles When it is found in the ventricles the disease is called *hydrocephalus chronicus internus*, when it is found outside of the ventricles, in the subarachnoid spaces, it is called *hydrocephalus chronicus externus* I am willing to admit that I have never been able, clinically, to separate these two classes of cases, I have never, as yet, seen cases in which I could separate an internal from an external hydrocephalus, so that I shall have to discuss the subject with you as an entity

This child presents to you such interesting features of beginning chronic hydrocephalus as you may not see again for years What makes me think that this child is suffering from this disease? The chain of symptoms that I have described to you is sufficient to justify me in that belief In the first place, and principally, the enlargement or dilatation of the child's head That is proof positive that the child is suffering from hydrocephalus Is such a thing possible as a child suffering from hydrocephalus without a dilatation of the head? Such a thing is possible, but of course it can occur only after the bones of the head have thoroughly ossified Then the dilatation goes on at the cost of the brain substance The fluid accumulates in the ventricles, presses upon the brain substance and causes it to occupy much less space than it originally did Of course in such a case the diagnosis becomes very difficult, but in a case like this the diagnosis is easy This child, when he came in, had a large head, but it has been proved by measurements that it has, since that time, increased very much in size, and it is still increasing

To what else could this condition be due? To nothing else, this is either hydrocephalus produced by an inflammatory active condition, or hydrocephalus produced by a passive condition What other symptoms have we that lead us to this conclusion? We have all these symptoms that I have described, we have the change in disposition, we have the change in the reaction of the pupil, we have the child suffering pain, and suffering in all probability from headache, which is indicated by his constantly putting his hands into his mouth These are all corroborative symptoms of the changes going on in the head This change of disposition is by no means a constant symptom I have now in my care a child with hydrocephalus that is apparently healthy and, if anything, more jolly than children usually are, and in which there are none of these manifestations The cases vary in regard to the symptoms they exhibit, these depending largely upon the amount of inflammatory change that is going on in the ventricles or in the meninges If there be very great inflammatory changes, if there be a great deal of pressure, then of course these symptoms will be more pronounced If, on the other hand, the child is born with too much fluid in the ventricles, there will not be many symptoms produced

Another feature that I want to call your attention to more fully, is the fact that this child does not move his head During the whole time that he has been sitting here, fully half an hour, he has not taken his hands away from his head, or moved his head in the least When he is in his crib with high sides, he either supports his head with his hands or leans it against the sides of the crib The explanation of this peculiarity is simple It is because the child's head is too heavy for him I want you to remember these facts, for they are almost characteristic of the disease

In regard to the other symptoms, it is not necessary for me to detain you long Usually there is some derangement of the alimentary canal in these cases, the children suffering from constipation, as this child does If the patient has had rickets and then becomes constipated, while it has other symptoms of hydrocephalus, this change will aid you in the formation of a diagnosis

What is the cause of the hydrocephalus in this child? Tuberculosis Tuberculosis produces hydrocephalus in several ways I have shown you that the child has tuberculosis of the lymphatic glands, the so called scrofulosis All the glands of the child are very much enlarged This may act in very many ways First, the circulation of the lymph in the brain may be disturbed, so that we may have an exudation of lymph in the subarachnoid spaces or in the ventricles Then the glands of the neck may be enlarged, and by pressing on the veins cause a transudation of the fluid elements of the blood In the next place, the tubercular virus may undoubtedly cause chronic changes in the membrane lining the ventricles, in this way cause chronic inflammatory changes, and thus produce hydrocephalus Which of these methods have been the cause of the disease in this case, I am unable to state Is tuberculosis always the cause of hydrocephalus? By no means I am speaking now of chronic hydrocephalus Acute hydrocephalus, you remember, is synonymous with tubercular meningitis, but chronic hydrocephalus may be produced by a number of diseases, as by a tumor of the brain Acute inflammations that become chronic may cause the disease, an acute meningitis may become a chronic meningitis It is claimed that syphilis has something to do with the production of a chronic hydrocephalus, but with regard to that and the production of the congenital form of the disease, we know but little Sometimes the disease is due to uræmic poisoning

The prognosis is, in the great majority of instances, bad Can you in an individual instance make a prognosis? Yes I should say that in a case of this sort the prognosis must necessarily be bad There are cases, however, in which, even after the exudation has become enormous, the child is reported to recover Perhaps some of you have seen cases in which the exudation has become so great that the head has gotten entirely beyond the control of the child, so that it has to be moved about by another person, and in which the child lives and gradually recovers After such a recovery there is, of course, a good deal of deformity I shall never forget the simile used by one of my teachers He said that he had a case of a child with an enormous head, that got well and grew to womanhood, but that her head looked like a raised map of Switzerland The exudation being absorbed, the head contracted, but the sutures remained raised You must, however, be on your guard about your prognosis

The treatment is to allay symptoms My treatment in this case is to give opium I give to a patient like this sufficient opium to keep him quiet As soon as I find that this irritable state has disappeared, if it does disappear, I give internally iodide of potassium, regulate the bowels, and of course try to remove the cause If the disease is due to uræmia, or if, in the course of a case of uræmia that you are treating, symptoms of hydrocephalus supervene, you must treat the case accordingly I have not much faith in puncturing these cases, although it sometimes seems to give relief I have no faith, either, in compression, for I have seen no good results from it

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THE HONORARY DEGREE OF DOCTOR OF MEDICINE

BY E INGALS, M D, CHICAGO, ILL

The ordinary degree of Doctor of Medicine is conferred by an institution of competent authority on persons who are supposed to have acquired, by diligent study and careful instruction, a sufficient amount of medical knowledge and skill to constitute them safe practitioners of the science and art of medicine The attainments of the person applying for the degree are ascertained by a proper examination, conducted by the teachers in the institution by which the degree is given The possession of the degree is evidenced by a diploma, which, after the person who holds it has complied with certain governmental requirements, assures to him all the rights and privileges of a member of the medical profession But such institutions may also confer, *without an examination*, the additional honorary degree of Doctor of Medicine on persons already in the profession, who have publicly demonstrated their attainment of such a degree of learning and skill in medicine as would make the conferring it on them to be an act of such undoubted propriety as to be acknowledged without question by all I bring this subject to public notice because the oldest medical college in this city has recently, on two different occasions, bestowed the honorary degree of Doctor of Medicine on a dentist Neither of these persons—if I am correctly informed—has ever made medicine a special study

Both are gentlemen of excellent character, and have been long and well known as skillful practitioners of dentistry I do not, however, understand that these qualities authorize any medical institution to confer the degree of Doctor of Medicine on their possessor

Dr Barnum, D D S, of New York, who hit upon the happy device of the rubber dam rendered a great service to the profession of dentistry, but it would be grotesque and incongruous to bestow on him, for this reason, the honorary degree of Doctor of Medicine With equal propriety it might be claimed by the plumber and optician The medical degree already has too low a rank, and instead of adopting methods still further to degrade it, our institutions of learning should try to elevate it to a position more worthy of esteem and confidence This can be done by conferring it only on persons of good character and high attainments It would be interesting to know how our State Board of Health would treat such an honorary degree, should the diploma be presented for registration Under the rules of the Board I do not see how they could consistently do otherwise than recognize it A professional innovation, wrong in principle and tendency, like this under consideration, should not be suffered to pass without protest, lest in time it might claim to be recognized as an established precedent

34 Throop street, Chicago

MEDICAL PROGRESS

OBSTETRICS AND GYNÆCOLOGY

COMPLETE PROLAPSUS OF THE UTERUS, NINE LARGE CALCULI IN THE CONCOMITANT CYSTOCELE —Dr Varnier (*Progres Medicale, Archives de Tocologie*) gives the case of a laundress, 68 years of age, who in 1875 was operated upon for prolapsus of the uterus The tumor reappeared in time, gradually enlarging until it became as large as the fist She passed through the vagina four calculi of the size of a chestnut, and, becoming alarmed from that circumstance and the severity of the accompanying pain, she entered the hospital Cochin in 1884 On her entrance, an examination established the presence of a vulvar tumor, pear-shaped and of the size of a child's head The anterior portion of the mucous membrane was rose-colored, and ulcerated in places, it was made prominent at one point by a calculus which was readily felt Pressure at that point was extremely painful, and disclosed the presence of several calculi contained in the cystocele At the superior and slightly lateral surface of the anterior portion of the prolapsus there was a vesico-vaginal perforation of the size of a one-franc piece, through which the urine passed constantly Two or three days after entering the hospital, the patient passed a calculus the size of a walnut through that opening On performing cystotomy, four calculi were removed, varying in size from an egg to a chestnut The wound was drained by a catheter kept in the urethra The results of the operation were very good, the wound being healed on the eighth day, but the urine remained purulent and the patient died at the end of five weeks after the operation The autopsy showed that the base of the bladder and the trigonum had followed the vaginal wall in its prolapsus The ureters opened into the cystocele The vesical mucous membrane, as well as the ureters, presented the lesions of chronic cystitis The kidneys were riddled with miliary abscesses, the cortical substance being almost entirely destroyed Chemical analysis showed the calculi to be composed principally of the phosphates and carbonate of lime

Dr Varnier draws the following conclusions from a study of the case 1 The complication of calculi with a vaginal cystocele is not very rare 2 The production of a vesico-vaginal fistula under these circumstances is extremely rare 3 Operations for the relief of cystocele are not so harmless as many writers would have us believe

A NEW EXPLANATION OF THE MENSTRUAL PROCESS —Under this title Lowenthal (*Archiv f Gyn*, *Arch de Tocologie*), before giving his own views, sums up very comprehensively the various opinions of the present day upon that series of phenomena which we class under the term menstruation What may be considered as established, are the following

1 The bloody discharge returns periodically

2 The form and duration of the flow of blood varies essentially with individuals

3 The menstrual blood is identical with that from other parts of the body

4 There occurs in the uterine mucous membrane certain anatomical and histological modifications (*a*) The thickening of the mucous membrane from two or three mm to five or seven mm takes ten days before the discharge of blood to reach its maximum This resembles the formation of the decidua in the first stages of pregnancy, certain round cells being present in both (*b*) During the flow of blood, the superficial layer of the tumefied mucous membrane is destroyed, retrograde hyperplasia, the epithelium of the superficial layer reforms, and, in nine or ten days after the onset of the hemorrhage, is ready with a few days' interval to take on tumefaction anew (*c*) The tumefaction of the mucous membrane occurs especially in the superficial layers, which become more lax, softer, and œdematous This is particularly the work of the glands and lymph spaces, in the beginning the blood-vessels play no part in the process It is only later, when the tumefaction is at its height, that the blood-vessels develop and fill up, that is to say, immediately before the occurrence of the hemorrhage The tumefaction is never the result of congestion, the congestion is never the primordial phenomenon (*d*) Only the mucous membrane of the body of the uterus takes part in this tumefaction The cervix remains free from the process

5 All the other genital organs, and the organism in general, are more or less affected by the menstrual process, but it is in the ovary that the most marked modifications occur

From these facts the author concludes that the menstrual process should be divided into three stages

1 A stage of thickening of the mucous membrane, one of hæmorrhage, and one of regression, *de restitutio ad integrum*

2 These three stages succeed each other in a determined and fixed order

3 The duration of these three stages is about twenty days, ten for the first, four or five for the second, and what remains for the third

4 The phenomena occurring in the other parts of the genital organs and in the rest of the organism, and designated as menstruation, corresponds to the second stage, to the flow of blood

Passing in review the various theories of menstruation and its relations to ovulation, the author recognizes three as of prominence

1 *The Classical Theory* —The actual or approaching rupture of a Graafian follicle, determines the menstrual hemorrhage To this theory the following objections are made (*a*) The real onset of the uterine menstrual process takes place ten days later (*b*) The menstrual blood can come only from a

mucous membrane that is already tumefied, as the vascular congestion does not occur primarily in relation to the tumefaction (*c*) The neck of the uterus takes no part in the tumefaction or in the hæmorrhage, which would be inexplicable if the process going on in the uterus was due to hyperæmia consequent upon ovulation (*d*) Perfectly normal ovulation, followed by fecundation, occurs without a discharge of blood (*e*) A single coitus occurring some time after the cessation of the flow of blood, and consequently after the supposed discharge of the ovule, suffices to produce fecundation

2 *Loewenhardt's Theory* —The fecundated ovule belongs to the next menstrual epoch The ovule is discharged before the menstrual flow occurs If it is fecundated immediately, there is no menstrual flow If it is discharged from the body, the flow occurs There are two varieties

First Variety —The discharge of the ovule does not take place until after the formation of the menstrual decidua (immediately before the flow)

Objections —(*a*) In this case there would be no plausible reason for the occurrence of the tumefaction of the uterine mucous membrane nearly ten days previously (*b*) If the ovule, which is fecundated immediately after its discharge, takes several days to reach the uterus, it cannot prevent the regression of the decidua, or the hæmorrhage (*c*) It is the coitus nearest to the cessation of the hæmorrhage which is the fecundating coitus, for it cannot be admitted that the spermatozoa can dance attendance for twenty days around the ovule

Second Variety —The discharge of the ovule occurs at the beginning of the formation of the decidua (about ten days before the flow)

Objections —(*a*) The diminution in size of the volume of the ovary, which can only be explained by the rupture of the follicle, has never been observed but in connection with an ulterior flow of blood (*b*) The premenstrual physical and mental disturbances, that have been considered the phenomena concomitant with the development of the follicle, occurs always before the hemorrhage and disappears with it (*c*) A periodical rupture of the follicle has never been noted as occurring at the beginning of the formation of the menstrual decidua (*d*) Coitus practiced a long time after the commencement of the tumefaction of the uterine mucous membrane and even immediately before the approaching epoch may be fecundative and suppress the flow

3 *Theory of Beigel* —Ovulation and menstruation have no reciprocal influence Both are the consequence of genital impulsion

Objections —*a* The menstrual process is periodical, whilst the cause to which it is here attributed, sexual excitability in the woman, may be produced at any time *b* In case of congenital absence of the ovaries, there is never menstruation, whilst genital excitability is not always wanting *c* When, as the consequence of castration, menstruation is suppressed, the generic excitability may persist intact, or be but slightly diminished *d* All the organs participate in the menstrual hyperæmia The body of the uterus alone is concerned in the hæmorrhage, the neck never, and thus general hyperæmia occurs immediately before the flow, whilst the real onset of the menstrual process commences ten days before

Theory of Loewenthal —This, of course, is discussed at some length, but it is well expressed in the following conclusions

I The periodical hemorrhage which is produced in the genital organs of the woman is not a consequence of the rupture of the Graafian follicle (a rupture which ordinarily occurs at the same time), but is due to the disappearance of the tumefaction of the uterine mucous membrane, a tumefaction which is independent of that rupture, and which is produced before the hemorrhage

II The menstrual decidua is determined by the imbedding of the last ovule which escapes from the ovary, and remains non-fecundated

III It is formed in the same way as that of the decidua of pregnancy, when the egg which so engrafts itself is fecundated, and it is destroyed after the death of the ovule, when that ovule remains unimpregnated

IV As concerns each isolated menstruation, the rupture of the follicle and the menstrual hemorrhage have no other causal relation to each other than this, that the active causes and circumstances which occur at the moment of the establishment of the hemorrhage are at the same time an occasional cause of the rupture of a follicle

V The coincidence of the rupture of a follicle and the hæmorrhage is not at all necessary Both may be produced independently one of the other A follicle may rupture without the production and regression of a menstrual decidua, and the hæmorrhage, the secondary consequence of the last follicular rupture, may be produced without the simultaneous rupture of a new follicle

VI The periodicity of the menstrual hemorrhage is due to the duration of the extra follicular vitality of the engrafted ovule, which remains non-fecundated The anomalies of this periodicity (general or individual) depend upon idiopathic or accidental influences which determine the lessening or even the absence of this extra-follicular vitality of the ovule

VII Fecundation is produced upon the ovule arising from the follicle which has passed into the uterus, generally at the time of the last menstruation, when it is uterine—or upon that ovule imbedded outside of the uterus, which is exceptional and is extra uterine

From all this come the following practical conclusions

VIII Menstrual hemorrhage is not a physiological function, nor the necessary concurrent manifestation of a physiological function, but the direct consequence, reinforced by innumerable repetitions, of a phenomenon produced by civilization—the non-fecundation and the death of an ovule—it has all the characters and all the influences of other hemorrhages, which are always pathological Like these, and under the same influences, it increases or diminishes

IX The hemorrhage which necessarily accompanies the destruction of the menstrual decidua cannot be considered as inoffensive, except as it occurs by diapederis A hemorrhage by rhexin is always useless and perhaps dangerous, for it becomes a cause of debility to the organism

X The degree of danger is in relation to the quantity of blood lost, and the quantity as well as the quality, is in relation to the blood of the whole body

XI In such cares it is necessary to moderate the menstrual hemorrhage, as with any other hemorrhage

XII The best treatment is rest in bed, and hot injections

XIII On the other hand, the absence of menstrual hemorrhage (idiopathic amenorrhœa) should never be considered and treated as a disease It is simply the proof that a function which is not indispensable to the life of the individual (ovulation), for some cause or other (youth, age, pregnancy, lactation weakness), has not manifested itself, or has not manifested itself at its usual time, that is, at the end of four weeks

XIV Recognizing the importance of the part played by the fallopian tubes in menstruation as given by Lawson Tait, the indications are, in cases of uterine dysmenorrhœa, menorrhagia, fibroma and other morbid processes, which influence the anticipated provocation of the menopause, to practise salpingotomy (resection of both tubes after ligature) instead of castration

XV If, in practising castration for one of the causes cited, the two ovaries are not completely removed, salpingotomy should be performed

ANATOMY AND PHYSIOLOGY

CASE OF MALFORMATION OF THE HEART —In the *Journal des Connaissances Medicales* is to be found the record of a man, 39 years of age, a tailor by occupation, who was affected with epilepsy and died of cerebral disease During his epileptic attacks he was not cyanosed, and gave none of the general symptoms of disease of the heart Cardiac dullness was slight Fremitus most marked at the second intercostal space on the left side A souffle with the first sound over the whole surface of the heart, having its maximum of intensity at the supposed location of the aorta A short souffle with the second sound, at the left intercostal space, near the sternum Pulse irregular The autopsy showed that the aorta was situated in front and to the left of the pulmonary artery, which it did not cross, it had two semilunar valves The pulmonary artery, instead of semilunar valves, was of a cone shape, and truncated above The orifice was narrowed and insufficient The two ventricles were as one, the interventricular wall being absent The auriculo ventricular valves were normal

MEDICINE.

LEAD-POISONING BY SNUFF —Dr F P Weaver reports a case of this character to the Liverpool Medical Institution (Liverpool *Med Chir Jour*) The patient, aged 32, suffered from attacks of colic and difficulty in urinating, the blue line on the gums was found to be present He took snuff in large quantity, Lundyfoot and brown rappee were his favorites A stream of sulphuretted hydrogen, passed through an infusion of the article, gave but a negative result An analytical chemist found lead in considerable quantity in the brown rappee, but none in the Lundyfoot By stopping its use, and suitable treatment, relief was afforded for some years, then a severe attack of colic showed that the patient had returned to the use of equal parts of Kendal brown and brown rappee This mixture was examined by incinerating a portion, treating the ash with water and a little nitric acid, filtering, and then passing sulphuretted hydrogen through the transparent liquid Speedily a black discoloration took place, leaving a large precipitate of sulphuret of lead Separate examination of the two components of the snuff revealed the absence of lead in the Kendal brown, its presence in large quantity in the brown rappee This latter was observed to be a moist snuff, wetting or greasing the paper containing it On buying some of the rappee snuffs at different shops, it was found that both the black and brown varieties were supplied to the retailers in lead foil, and were kept by them in this lead foil in canisters The rappee snuffs from different shops presented the same reaction, all contained much lead

The question arose Was the lead derived from the addition of a salt of lead to the snuff, or from the oxidation of the lead foil in which the snuff was kept? Dr Weaver considers it as derived from the enclosing lead foil, because, *firstly*, the snuff was issued by a first class maker of high standing in the trade, *secondly*, we have the fact of its being actually kept in lead, and *thirdly*, the kind of snuff was that variety, "moist brown rappee," which writers on the subject seem specially to have found contaminated by its wrappers He finds that there are on record thirty four cases of this form of lead-poisoning, and that there can be no question that the long-continued use of moist rappee snuffs brings on insidiously lead-poisoning, causing paralysis of the anus, anæmia, and repeated attacks of colic

COCAINE IN IRRITATION OF THE BLADDER —Mr Edward Bellamy reports that he has used cocaine in cases of irritable bladder, with spasm at the neck of the bladder, with success He uses it in the form of gelatine bougies each containing gr ¼ of the hydrochlorate of cocaine —*Lancet*, February 14, 1885

SURGERY.

A CASE OF PERIODICAL ERYSIPELAS —Dr Cebrian (*Medicina Contemporanea, Le Progres Medical*) gives the case of a married woman, 31 years of age, of a nervous temperament, good constitution and enjoying good health up to the time of her marriage, from which period she has suffered from periodical attacks of erysipelas of the right side of the face Her mother died of black erysipelas in the third month of pregnancy She herself has had three children, whom she nursed The attacks come on with a chill, accompanied by intense cephalalgia and followed by fever The right side of the face is invaded by a vivid redness, which disappears on pressure, giving a burning sensation Between the right and left sides of the face there is a very marked line of separation, commencing at the median line on the forehead, passing down on the median line of the nose, lips and chin, then becoming gradually imperceptible These attacks commenced for the first time with the suppression of the menses which marked the first pregnancy Their periods of invasion, increase and decline conform exactly with the duration and intensity of the menstrual flow, that is, the attacks commence on the day that the flow should appear, and are at their height when the flow should be the greatest, then decline, terminating on the fifth or eighth day This is repeated without interruption to the fourth month of pregnancy, not to return until a new pregnancy occurs Two married sisters suffer in the same way

EXTIRPATION, BY LAPAROTOMY, OF A HYDATID CYST OF THE LIVER —Dr Guttierez reports this curious case in *El Dictamen* (*Le Progres Medical*) A boy, 8 years of age, suffered from a tumor situated in the right iliac fossa and as large as a fœtal head Capillary puncture gave a clear fluid containing numerous hooklets, which were insignificant It having been decided to extirpate the tumor, the right side of the abdomen was opened by an oblique incision, and the tumor dissected from its adhesions to the epiploon, of which a portion was also removed to avoid its mortification After opening the cysts, which had increased rapidly in size after the exploratory puncture, there was discharged with the fluid the great pouch or hydatid, which had as its external envelope the the thickened capsule of Glisson, which the hydatid had by degrees disengaged from the external surface of the liver until it had lodged in the iliac fossa, the operator extirpated the fibrous envelope from its hepatic attachment to prevent any suppuration that might compromise the result of such a brilliant operation He then applied three sets of sutures, very fine catgut, including first the peritonæum, then the divided muscles, and, finally, the skin, using Lister's dressings There was not the slightest trace of peritonitis, but reaction from the effects of the operation was slow, the wound healed perfectly, however, and digestion was normal

MUSCLE GRAFTING —Dr Eduardo Salvia has recently published at Naples a memoir embodying experimental researches on muscle *grafting* (*Lancet*) Gluck was the first to prove experimentally that muscular tissue detached from a living animal has the power, when introduced into the tissues of another animal, of contracting organic adhesions and continuing to live He observed that by adopting certain precautions, chiefly of antisepsis, pieces of muscle, without tendon, might be transplanted in rabbits and hares, and remain in the part grafted as true muscular tissue If, however, the graft excited inflammatory reaction of some *intensity, the* histological characters of the engrafted tissue underwent fibrous metamorphosis Dr Helfreich, in 1882, put this to practical use He removed a sarcoma from the front of the right arm of a lady aged 38 Nearly the whole of the upper half of the biceps was removed, only a small bundle of muscular fibres as thick as a slate pencil being left on the outer side, continuous with the tendon The resulting space was exactly filled with a piece of muscle, weighing three ounces and two drachms, detached from the thigh of a healthy dog just at the moment of grafting Care was taken to ensure accurate adaptation of the muscular surfaces, without hagging, and the grafted muscle was secured to the remaining portion of the biceps with thirty points of catgut suture Some counter-openings were made in the skin for drainage, the external wound sutured, and a Listerian dressing applied The arm, bent at an acute angle, was fixed to the thorax On the ninth day, at the time of the first dressing, in consequence of the detachment of some of the sutures, the lower angle of the wound gaped somewhat, and through it issued a necrotized fasciculus of the engrafted muscle The piece of separated muscle was as long as the canine portion inserted, and about one-eighth its depth On the eighteenth day a piece of skin as large as a shilling sloughed at the point of issue of the mortified muscular fasciculus A month later the patient had completely recovered, but the limb was somewhat œdematous After employing for two months the constant and induced currents of electricity, the right biceps muscle regained its normal electro-motor power, alike on the right side, where a part of the original muscle remained, and on the inner side, corresponding to the engrafted muscle The patient could move the forearm with power, and without the slightest pain, alike in pronation and supination

Dr Salvia, after a number of failures, has succeeded, under strict antiseptic precautions, in engrafting into the thigh of a dog a portion of the rectus femoris of a rabbit So perfectly did the transplantation succeed that no trace of it could be discovered by the naked eye or the microscope when the dog's thigh was dissected three months later Reviewing all the steps of his research Dr Salvia formulates the following

1 It is possible to transplant a piece of the muscular tissue of an animal amongst the cut muscular fibres of another animal, although the two may be of different species

2 The piece of transplanted muscle may become thoroughly united with the muscle into which it is grafted without exciting suppuration or specific inflammation For the attainment of this result it is necessary that the piece of transplanted muscle should completely fit the space resulting from the retraction of the ends in the excised muscle It is equally necessary that the operation be carried out with the strictest antiseptic precautions

3 The union between the fibres of the transplanted muscle and those of the animal grafted takes place by new formation of young muscular fibres, these become immediately continuous with the fibres of the animal and of the graft, without leaving any trace of the primary point of separation

4 The grafted muscular fibres gradually lose their distinctive anatomical characters, acquiring those of the animal's fibres in which they live No difference between them can, after a certain time, be detected by the most careful microscopical examination

5 The function of the muscles after the graft is perfectly restored, and that comparatively quickly, without the slightest indication of weakness or torpor

THE
Journal of the American Medical Association.

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE, INCLUDING POSTAGE

PER ANNUM IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any date The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY MARCH 14, 1885

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Until the commencement of the JOURNAL in July, 1883, the proceedings and papers of the association had been published in one volume, each year varying in size from 500 to 1,000 octavo pages For many years past the annual volume has not reached the table of the members of the association until from seven to nine months after the annual meeting at which the papers, addresses, resolutions, etc , composing its contents had been prepared and presented by their authors By such delay much of the influence upon the profession expected from the proceeding of each meeting was entirely lost, and it became a common remark that few of the papers were ever read except by their authors One of the strong arguments in favor of changing to the publication of a weekly journal, was that it would bring the full record of proceedings of each annual meeting directly into the hands of every member, followed quickly by the important addresses of the President of the association and of the chairmen of the sections, while the important papers relating to all departments of medicine and surgery would follow as fast as the most diligent reader would wish

To enable the reader to judge how far this object in adopting the journal form of publication has been realized, it is only necessary to remind him that the full official record of the proceedings of the meeting in Washington in May last, as prepared by the Permanent Secretary, was in the JOURNAL the second week after the adjournment of the meeting, while the address of the President of the association, and that of the chairman of the section on practical medicine, appeared the same week of the meeting Other addresses and papers followed at the rate of from one to four in each number, until almost all had reached the tables of members by the end of the first six months And it is safe to say they had been actually read by ten times as many medical men as had read the papers in any annual volume of transactions published within the last dozen years And whoever will take the trouble to make the comparison, will find in these addresses and papers both a greater amount and wider scope of matter of direct practical importance, reaching every department of the healing art, and including the results of much important original investigation, than is to be found in the department of original articles in any other weekly journal in this country Many of the papers have been accompanied by numerous and well executed illustrations Besides the papers belonging to the association, the same department of the JOURNAL has contained several valuable contributions from other sources, and many important papers read before other medical and sanitary organizations Every number has contained three or four pages of *Medical Progress*, selected chiefly from the foreign current medical literature, by a special assistant editor in Washington, and most of the numbers have contained interesting letters from regular correspondents in London, Paris and Berlin, as also in Boston, New York, Philadelphia, Cincinnati, and many minor places in our own country

If a less number of pages have been filled with the proceedings of local medical societies in different cities than in some of our contemporaries, it is simply because we had not more space at our command on account of the number and length of the papers of the association, which were entitled to precedence Yet we have given even in the department of local society proceedings, a large amount of very valuable matter from societies in Boston, New York, Philadelphia and Chicago, as well as from some places of less note Prominent attention has been given to sanitary matters, health organizations, and proper principles of medical legislation, and, unless the voluntary assurances of some of the most eminent members of the profession are erroneous, it has already exerted much influence in checking the tendency to social and ethical disintegration, which had been making rapid progress during the few years prior to the commencement of the JOURNAL We shall tax the patience of our readers in one more issue to present the financial progress of the JOURNAL, its present status, and some suggestions concerning its needs and future management

FRENCH JUSTICE IN MALPRACTICE SUITS

The Paris correspondent of the *British Medical Journal* of February 7, states that an action was recently brought by an *Officier de Sante* against Prof Trelat and M Delens M Bouyer, the plaintiff, stated his case as follows In the act of nailing down a box in May, 1883, he slightly injured his left index finger He sent for M Piogey, his neighbor, who was replaced by his nephew MM Trelat and Delens were called in by M Piogey, and the plaintiff complains that a number of operations were performed on him that he was conducted to a *Maison de Sante* and that M Delens applied undiluted alcohol to his bleeding wound, that drainage tubes were used, and camphor dressings bandaged on After six weeks of daily agony he left the *Maison de Sante* with a deformed hand The plaintiff accused MM Delens, Trélat and Piogey of having treated and tortured him against his will, of having injured him by unskillful treatment, and names his damages at 20,000 francs ($4,000)

M Piogey declares that the plaintiff had a deep wound in the left forefinger He sought the help of his nephew, because the patient required constant care day and night Symptoms of septicæmia soon appeared, and it was necessary to call in a surgeon M Bouyer was recommended to M Delens by Dr Pénieres, a deputy He found that very serious lymphangitis had set in, and several collections of pus had formed He prescribed dressings of alcohol in solution M Trélat's services were also secured by a mutual friend The patient expressed gratitude for the care taken of him, and never opposed any part of the treatment, otherwise, his wishes would have been considered M Trelat accepted the responsibility of having M Bouyer removed to a *Maison de Santé*, his condition required it He was in an almost hopeless condition, and could not otherwise have had the necessary attention given to him M Bouyer, the plaintiff, has been condemned to pay 3,000 francs ($600) to each of the three defendants

If some of the common sense evinced by this verdict could be imported for the use of the intelligent jurors of America, malpractice suits would be less common

DYNAMITE INJURIES

The past two years have been rather fruitful of new surgical injuries To the much written of "lawn-tennis back," "lawn-tennis knee," "foot-ball shoulder" and "bicycle perineum," it seems that we must now admit "dynamite injuries" as a peculiar class of surgical lesions Unfortunately, as regards an extensive acquaintance with the peculiarities of this latter class, and unfortunately, also, for the recipients of these injuries, the persons affected by them are more often subjects for a coroner's inquest than for the surgeon's skill

Mr Frederick Treves reports, in the *British Medical Journal* of February 14, 1885, the cases of two sufferers from the dynamite explosion at the Tower of London, who came under his care at the London Hospital As regards the gross lesions caused by the explosion of dynamite, there seems to be nothing special The fractures, lacerations and contusions inflicted by fragments and falling *débris* are very similar to those caused by other injuries But the point of greatest interest seems to be the general effect of the explosion upon the nervous system While it is evident that the body must be concussed or shaken by the explosion, it would be scarcely expected that the effect upon the nerve centers would be identical with the concussion produced by a blow upon the head or the shock caused by a railway collision, the shock from a dynamite explosion seems to be that of a force that is diffused and finely divided It seems that the person affected by it is not hurled to the ground so as to suffer such an injury as may produce concussion in the ordinary clinical sense There is a sensation of being pushed back rather than thrown down

The symptoms in the two cases which he reports may be ascribed, he says, solely to the general shock caused by the explosive, with, perhaps, some superadded emotional influence Neither of them suffered from true clinical concussion, they were not even stunned "Their chief symptoms seemed to have been the outcome of a general enfeeblement of nerve-function, whereby the action of the heart was depressed, the vision dimmed, and the hearing—apart from local changes—dulled It is interesting to note that, in one case, the accident was followed by repeated vomiting " So far as local effects were concerned, the most definite effect was produced upon the membrana tympani

THE TREATMENT OF SEVERE ELECTRIC SHOCK

Dr C G De Schweinitz, of Philadelphia, has recently reported two cases of severe electric shock which recovered under expectant treatment, and an exchange (the name of which we cannot now recall) commends the expectant method in these cases, on account of the fact that we are as yet ignorant of any medical treatment which promises success In the *Medical Record*, for January 31, 1885, Dr W G Eggleston, of Philadelphia, reports three cases of this nature which fully recovered under treatment by atropia and stimulants As may be seen by reference to the latter article, the persons were profoundly shocked and insensible for some hours, that the respiration and pulse were abnormally slow, and that death from dyspnœa or heart failure seemed not improbable, and that these symptoms were relieved and finally dissipated by the treatment adopted

As persons have been known to die from the influence of electric shock some hours after the reception thereof, it seems that any treatment which will relieve the system of its influence should be adopted, and from the prominent symptoms in these cases—dyspnœa and threatened heart failure—there is scarcely a doubt that atropia is a physiological antidote to the influence of electricity, and that its effect is aided by the administration of such stimulants as brandy and ammonia

Apropos to this subject, it may be mentioned that a recent number of *La Lumiere Electrique* states that Prof Dolbear has found that wires carrying currents of high tension may be safely handled if the hands be thoroughly covered with oil With gloves thoroughly impregnated with oil, he thinks that wires carrying a current of 80,000 volts may be touched with safety

COOKERY-LESSONS FOR STUDENTS OF MEDICINE

A recent number of the *British Medical Journal* calls attention to the important part played by the medical profession in the matter of ordering suitable diet for patients, and commends the thoughtfulness which has inaugurated a school of cookery in Edinburgh, in which the medical students in that city may learn how the foods appropriate to the invalid are prepared During the present session this school has given four lessons in the preparation of food and drinks, in the large theatre of the Royal Infirmary It speaks well for the intelligence of the students that these lessons were largely attended and highly appreciated Among other things, the preparation of beef tea, beef jelly, milk-jelly, gruel and milk gruel, and self digested farina were shown, and students were invited to examine for themselves practically the various diets ordered for patients

Such a course for medical students is to be commended in the highest terms, for, apart from the practical application of the knowledge gained in such a school, the time and money here spent is well invested, few things give a physician a firmer hold upon the affections and respect of his patients than a thorough knowledge of what they should eat, and how to prepare it In connection with the cookery-schools we would suggest that students be taught the art of compounding suitable beverages for the sick The physician who knows how to make an eggnogg or a milk-punch is often an important factor in a community

STATE SANITARY INSPECTION

The Illinois State Board of Health has inaugurated a system of inspection of houses and premises which, if carried out, will put them in possession of most valuable data for present or future sanitary work

The circular recently issued by the Board promises that whatever may be done in anticipation of an epidemic of cholera will be equally serviceable for the restriction of other filth diseases

The proposed plan is to make a systematic report of the hygienic features of every piece of property, accompanying it with a diagram of the same Blanks are provided for this purpose, which, when filled out, are to be preserved by the local health authorities, by whom the work is to be prosecuted Tabulated and condensed returns are to be made to the State Board of Health

This plan, if carried out, would put the authorities in possession of many important facts, but there are great difficulties in the way of making such an accurate and full inspection as shall be of practical value in the prevention of an epidemic

SECRETARY OF THE SECTION OF OBSTETRICS AND DISEASES OF WOMEN

The Permanent Secretary of the American Medical Association, in his official notice of the next annual meeting, gives the names and addresses of the officers of the several sections But he gives the residence of Dr J T Jelks, Secreary of the Section of Obstetrics, etc , as Little Rock, when it should be "Hot Springs," Arkansas We make the correction for the benefit of those who may desire to correspond with him regarding the business of that section

PROCEEDINGS OF THE SECTION OF SURGERY AND ANATOMY

Under the head of Society Proceedings, in this number of the JOURNAL, will be found an interesting extract from the official record of the proceedings of this section during the recent meeting in Washington Nearly all the remainder of the record, consisting of the report of discussions on the several papers presented to the section, has been published in connection with the papers to which the discussions referred

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY.

Stated meeting March 2, 1885

Mollities Ossium —Dr W J Webb read a paper on this subject, which included a report of a case that he had recently had under his care After some preliminary remarks upon the subject, he stated that he first visited Mr G about the first of August, 1884, and found him lying on his back, with labored respiration Aside from this, all the other external appearances indicated that the patient was comparatively comfortable and well nourished When the bed covering was removed, it was seen that his right arm was bent and fractured, as also were the femora The anterior part of the chest wall was directed forwards and upwards, and as the writer placed his hand over the patient's chest, it imparted a sensation which reminded him of a counting abacus under the skin so nodulated were his ribs There was also a separation of the left supraorbital ridge, which was detached from the continuous bony structure, and upon moving this, crepitus was elicited The detached bone became partially united soon afterwards, as also did a number of other fractures, and remained so until the patient's death The maxillary bones and teeth were quite firm and unyielding The joints of his limbs were slightly enlarged and irregular in outline His appetite was good Temperature 97½° F, respiration 22, pulse 99, accompanied by what was regarded as an aortic heart murmur His bowels were constipated, the tongue slightly coated with a light yellowish fur The amount of urine voided in twenty four hours was 136 ounces, having a specific gravity of 1021, and an acid reaction, with considerable deposit of phosphates, and containing a trace of albumen No microscopial examination was made The patient was partially cyanosed and jaundiced There was also some seborrhœa of the scalp and hairy portions of his body, which was at times accompanied by severe itching This seemed to be due largely to want of proper ablution of the parts Evidence of specific disease, particularly on the anterior portions of his legs, arms, shoulders and upper portions of the chest, were present, as was indicated by a number of characteristic spots and cicatrices His hair was dark and quite normal in other respects, his beard was comparatively thin and confined chiefly to the chin and upper lip The genital organs were atrophied, or diminutive in size

October 6 the following history was elicited His native place was Lycoming county, Pennsylvania He is of German descent, although his parents were born in the United States His father, although always in poor health from "urinary trouble," is living, aged seventy five His mother died at the age of forty-six, cause unknown His father's father died at sixty years of age, his father's mother at nineteen, his mother's father at eighty, mother's mother at fifty five He has a brother living who is in poor health, the result of "heart and lung disease," whose age is thirty one Five sisters are living, the eldest aged forty-five, is an invalid from "liver difficulty," and is unable to do much work, another sister, aged forty-three, is in poor health and suffers from symptoms identical with those of the patient, such as severe aching in her bones, etc The three remaining sisters, aged thirty-nine, thirty-four and thirty, are all living and in poor health About the only vice the patient acknowledges to have indulged in, is that of onanism, which he commenced at the age of eight years and continued moderately during his youth He has always been very passionate in this respect, so much so that it seemed almost impossible for him to satiate himself after he was married This morbid sensation did not forsake him until a few weeks before the writer saw him He stated, also, that he often had quite profuse discharges of milky-looking substance from the penis during defecation, and sometimes before or after voiding his urine, this has troubled him at irregular intervals since his youth At nine years of age he claims to have had a sunstroke, but upon close questioning this was decided to be a fit or convulsion Previous to this he suffered much from indigestion and diarrhœa, and at times passed considerable undigested food After the (so-called) sunstroke he was continually constipated Since the age of sixteen he has been tired and sleepy for a goodly portion of his time, even to lying down and falling asleep in the midst of his work Heavy lifting has always hurt or otherwise injured his bones He has always had a ravenous appetite, in fact, this seemingly abnormal condition was rarely ever satisfied, and besides this he drank a great deal of water, coffee and tea, but has never indulged in alcoholic stimulants

In 1870 or 1871 he moved to Nevada, where he worked in the woods Whilst there he suffered considerably from catarrh and dryness of the throat His appetite continued the same, but at this time he became subject to fits after his meals At the expiration of three months he moved to California, with improved health, though, singularly enough, with an impaired appetite He remained there until 1873, when he returned to Nevada, where he began mining Here he drank a great deal of water that had a sweetish taste, and, as was said of it, contained large quantities of arsenic At this place the patient first noticed an eruption on his skin, which he was told was caused by the arsenic Simultaneously he had sore throat and alopecia After eighteen months he became so badly bloated that he was unable to work He was then seized with an attack of dysentery, which lasted for fully two weeks, the effects of which, he thinks, he never recovered from

In 1875 he resumed "chopping" in the woods but in a short while he was obliged to desist, on account of severe pain in his stomach and in his bones He was also annoyed a great part of the time with a disagreeable taste in his mouth, and by the eruption, which appeared in an aggravated form, besides this, he had numerous furuncles or "blind boils" Further than this, he passed a tapeworm During this year, also, his urine was examined, it was of light specific gravity, and contained albumen In 1876 the patient had a severe struggle with a vicious horse, he then suddenly felt acute shooting pains in numerous portions of his body, and subsequently suffered with diffused soreness and deep-seated pain in both upper and lower extremities This condition remained, with more or less regularity and severity, until the summer of 1882, when he was unable to go about without the aid of crutches In 1877, however, he was married, and has two apparently healthy children, who are 4 and 2 years of age His wife is healthy, but has a prematurely elderly look In 1880 he passed another tapeworm

In 1883 an analysis of his urine showed that it contained albumen, and at one time its measurement reached twelve pounds in twenty-four hours Two weeks before his death a partial chemical analysis of it was made by the writer, and found to contain a peculiar albuminoid substance, which would coagulate when nitric acid was added, but would again redissolve when heat was applied This substance was supposed to be the same as that described by Dr Bence Jones and others as deutoxide of albumen During this long interval of years the patient was treated by a large number of physicians of all faiths for many diseases Some years ago he was salivated, and he thought that the mercury he took was a cause of the pain in his bowels For a year previous to June, 1884, he had taken large quantities of acid phosphates During this month the patient abandoned all attempts at work and took to his bed

On October 6, 1884, the following measurements and other facts in the case were recorded Lower right extremity from symphysis pubis to internal malleolus was 23 inches, lower left extremity measured from the same corresponding points, 26 inches, across the femora, just below the great trochanters, 20 inches, right tibia, 16 inches, left tibia, 17½ inches, sternum, 7 inches The cranial vault was quite easily depressed, and was flexible Total length of his body, 52 inches, original height, 68 inches The pulse was normal, respiration 23 and labored, some ascites was present, appetite good, he sleeps well, mind clear, memory good, his thorax was flattened

October 13 Tongue slightly coated, pulse, 102, temperature, 99° F, respiration, 23 He is otherwise in the same condition, except that both arms are now almost entirely useless

Although a few weeks previously the right humerus had united sufficiently to enable him to use a fan, which afforded him much relief, his thorax continues to flatten, which embarrasses more and more the functions of the respiratory and circulatory organs

October 20 His condition remains much the same as that of one week ago

October 30 Patient's temperature is 97½° F, pulse, 94, quite regular, but soft and weak, his breathing is more labored, and he is considerably cyanosed (The day previously he was thought to be dying, so very dark did he become) The heart's action is exaggerated, with the first sound increased, while the second sound is scarcely audible

November 10 The patient is unable to move any member of his body, except the right hand slightly, and the fingers and toes, his lower extremities are completely everted, and the tissues can be deeply pitted on pressure Temperature is 99° F, pulse, 112, respiration, 24 His appetite remains good, but he vomits his food almost every day, and his sleep is much disturbed by dreams

November 12 Temperature, 99° F, breathing, 25, pulse, 120, with symptoms pointing to giving way of vital forces

November 20 Symptoms improved, temperature, 97½° F, respiration less labored and 22 per minute, pulse, 90 During the past few days his diet has been restricted to raw beefsteak, which has agreed with him, milk causes much distress and provokes vomiting

January 7, 1885 His symptoms of relief were only temporary, at this date he is suffering greatly from dyspnœa The thorax is greatly flattened and the ribs are scarcely perceptible in many places, there is much pain in the right lung, and nearly one-third of it is above the clavicle Temperature not taken, pulse, 115, respiration, 26, and performed with the utmost difficulty There is obstinate constipation There is a small ulcer on his tongue, and an eruption on his face resembling postular acne The copper-colored spots disappeared from his body some weeks ago A cough has set in, and he expectorates a considerable quantity of viscid mucous

During the succeeding two weeks he continued to fail gradually, with all the symptoms more or less intensified, until January 19, when he died of asthenia. His age was about 35 years

An autopsy was made on the following day in the presence of Drs Seiber, Porter and Gates The body was much flattened and diminished in size, so that its general contour much resembled that of the common marsh frog The body was greatly emaciated, and the skeleton was distorted in various ways The entire body and limbs, after being subjected to a stretching process, was 55 inches, left femur, 11 inches, right femur, 11¾ inches, left tibia, 14 inches, right tibia, 13¼ inches, sternum, 6½ inches both humeri, 11 inches, left ulna, 9 inches, right ulna, 10 inches The diaphragm extended on the right side up to the fourth rib, on the left side to a point one and one half inch lower The entire chest-wall, however, was directed upwards at least two inches The heart was in the median line and was moderately distended with blood The pericardium extended up to the second rib, and contained about an ounce of fluid The tissue of both lungs was quite normal in appearance, except that of the upper lobe of the right lung, which was bound down by recent pleuritic adhesions In position they were much crowded upwards, a considerable portion, as has already been stated, was above the clavicle The liver was smaller than normal, and slightly congested The vena cava and pulmonary veins were filled with blood The spleen and pancreas were about one half their normal size, and very pale and tough The kidneys were slightly enlarged, irregular in outline and nodulated Their capsules were thickened, the pyramids were enlarged and the tubules partially filled with what seemed to be a calcareous deposit The pelvis of each kidney contained more fat than is commonly found The bladder was moderately distended, and nearly filled the pelvis The peritoneum, as well as the intestines and stomach, presented an unusually pale and yellowish color The bowels contained hardened feces, the descending colon and the mesenteric glands were enlarged The brain and spinal cord were not exposed, the head, however, was much smaller than formerly, there being at least one and a quarter inch difference in the circumference The entire osseous system was in an abnormal condition The vault of the cranium was as easily depressed as a moderately distended foot-ball, and almost as flexible As was stated in the early portion of this abstract, the bones of the face suffered least, this fact corresponds with most of the other reported cases, yet the maxillary and facial bones were lacking in stability, as was evinced by their being tender to the touch before death, and by the looseness of the teeth, the enamel of the teeth was unaffected The clavicles were enlarged, elongated and much curved upwards and forwards The thorax, as has also been previously stated, resembled that of the frog (*rana palustris*) more than that of a man The sternum was not so much affected as were most of the other bones, this being due, the writer thinks, to the close proximity to the cartilages of the ribs, it was neither in its proper shape nor position, the manubrium, together with the sternal ends of the clavicles, extended upwards and forwards, while the gladiolus pointed upwards and slightly backwards, which made a decided curve posteriorily At the anterior third of the shaft of the ribs, nearly or quite all the proper bone substance was wanting, while the periosteum was bent or folded upon itself The condition of the chest-wall was such as to cause great pressure upon the organs within, and his breathing during the last six months was largely diaphramatic The spinal column, while its natural curves were increased, was enlarged There was quite a sharp and extensive lateral curvature to the right in the dorsal region, and a slight curve to the left in the lumbar region

In the pelvis the distortion was as great as that in the upper part of the body The ossa innominata were nearly at right angles with the horizontal plane of the pelvis The ilia were crowded inwards, while the ischia were directed outwards, the sacrum was directed forwards, and the pubis slightly backwards and downwards This position of the pelvis, together with the lower extremities, including the everted position and the curving outwards of the femora, served to remind one of an old Egyptian lyre, as the outline thus formed was much the shape of the frame of one of these ancient instruments, this description does not apply to the position the body assumed after it was straightened out The upper extremities presented nothing of special importance, except that they were very small, and so soft and flexible that they could easily have been tied in a knot The only specimens of bone removed from the body were the upper half of the right femur with a portion of the acetabulum, the sternum, and a part of a rib Upon the section of the femur, only a trace of bony substance was seen adhering to the inner surface of the periosteum, but as the head of the bone was approached the cancellated structure was more characteristic, though it was not so hard but that it could easily have been incised with an ordinary scalpel When the periosteum was cut into there escaped a considerable quantity of sero-sanguineous fluid that completely enveloped and seemed to permeate the liver-like substance that had taken the place of the medullary canal and the greater part of the shafts of the bones In the trochanters there was an augmentation of soft cancellated substance, containing a large deposit of fat The neck of the bone was shortened, and the great trochanters extended above the articulation with the acetabulum

During the first two months of treatment the patient could not be persuaded to take many remedies, at least in sufficient quantities to produce any perceptible effect, he continued taking acid phosphates and an infusion of senna occasionally to move his bowels, later on he was given iodide of potassium and syrup of sarsaparilla, then a pill of pyrophosphate of iron and quinine The writer suggested that when practicable a water bed should be used for this class of patients, and an ingeniously devised method of effecting moderate extension made of plaster of Paris, or what is probably better, would be some other kind of cast properly adjusted to the chest, might benefit the sufferer This would have a tendency to preserve the proper shape of the thorax, and counteract the contraction of muscles upon which depend the various distortions of the skeleton, and consequently lessen the irritation of sensitive tissues The most positive information that we have as regards this affection has come to us from Europe The valleys of the Rhine and Po seem to furnish the greater number of cases In the female the disease is more often found associated with the pregnant state The social habits and character of the food eaten, where it is deficient in saline constituents of bone, may play an important part in the predisposing cause, also the unsanitary surroundings, added to the character of the water used Rickets, struma, syphilis, miasm, lympho-sarcoma, rheumatism, dampness, hereditary taint, mental disease, etc, were all mentioned as an explanation of the cause of this morbid change The urinary secretion generally presents a marked alteration in character and appearance, and usually contains a deposit of phosphate of lime, which, however, may be a result of tissue metamorphosis According to one of the old writers, osteo-malacia may be divided into three classes (*a*) Those due to carcinomatous or sarcomatous disease of the medulla, (*b*) those due to an affection of the medulla, allied to lymphoma, (*c*) those due to some peculiar condition of the medulla, or perhaps of the blood, dependent on the state of pregnancy

Dr Webb closed by advancing the opinion that in future investigations of this disease, the functions of the nervous system will receive more attention than formerly

Regarding the case reported, the symptoms date prior to the year 1875, when he undoubtedly had syphilis, and since some of the other members of the family have similar symptoms, it is reasonable to infer that a hereditary tendency existed as a predisposing cause This, together with his youthful vice, spermatorrhœa, and erratic temperament, may have been sufficient to induce the albuminuria and a consequent cachexia that served as a fruitful soil for the ravages of the specific disease

Dr C E Webster stated that through the kindness of Dr Webb he had had an opportunity of examining the patient, and was greatly interested in this report of a rare and obscure disease He would like to inquire of the reader if in his study of this disease he had been able to distinctly separate it from the condition known as "fragilitas ossium"

It seemed to him that cases of fragilitas ossium were sometimes diagnosticated as osteo malacia He also thought that there was a tendency, growing from the reticence on the part of patients to admit syphilis, to make that diagnosis in all obscure cases, not giving due credence to other possibilities He would like to know if an examination of the liver was made at the autopsy, and also whether it was an established fact that only a rare form of albumen was soluble in boiling nitric acid Regarding supporting the chest, he thinks no splint could have been devised to prevent collapse of the thorax

Dr J J M Angear spoke of an affection of the trophic nerves as a possible starting point of this disease Regarding onanism as a habit, everything following this practice is of course attributed to it, but he thinks that there is a disease of the trophic nerves that precedes this, or that there is a disease of the nerve centres that causes this depraved condition, and that it is governed by nerve influences He therefore thinks that where a post-mortem examination is made, the nerve centres should be examined in cases in which a patient is known to have practiced onanism, as well as in those having suffered from mollities ossium

Dr A Leich inquired if there were any changes in the small blood-vessels Were they, in conjunction with the portal vein and heart, cyanosed?

Dr Liston H Montgomery thought that if the patient had had syphilis several years previously, and the children were robust in appearance, when during a considerable portion of this time, tertiary symptoms manifested themselves in the father, he could not understand how it was that the children enjoyed good health *now*

Dr Webb closed by stating that he could not answer satisfactorily the questions that had been asked He though there was a close relation between some cases of mollities ossium and fragilitas ossium, rickets and specific disease Regarding the nerve centres that control the process of nutrition, he thinks it is quite probable that they are first the seat of the disease, or that hydro-myelitis or osteo-myelitis may be complicated with it He was sorry that he had not closely examined the liver in this case, and obtained slides for microscopical examinations

EXTRACT FROM THE SECOND DAY'S PROCEEDINGS OF THE SECTION OF SURGERY AND ANATOMY, IN WASHINGTON, D C, MAY 7, 1884

Dr L A Sayre, of New York, read the report of the committee appointed relative to the death of Dr S D Gross

Resolved, That the members of the Section of Surgery and Anatomy of the American Medical Association have received with a sense of profound regret the intelligence of the death of Prof Samuel D Gross, M D, of the State of Pennsylvania, one of the greatest ornaments of this Association, and one of the most distinguished teachers and authors in the medical profession in the United States

Resolved, That the memory of the deceased deserves to be cherished with love and veneration by the members of the medical profession, as that of a man profoundly versed in medical science and worthy to be ranked with the greatest and ablest of our age and country

He had mastered the vast learning of his profession, and the natural kindness of his great and generous heart was such that, throughout his long and successful career as a practitioner, he was continually experiencing the most intense satisfaction and pleasure in relieving by his science the suffering of humanity

Resolved, That these resolutions be entered upon the journal of the proceedings of this section, and that the chairman transmit a copy to the family of the deceased J M Kellar, Ch'n

Lewis A Sayre, Austin Flint, Jr, R A Kinloch

On motion, the resolutions were adopted

Dr J W S Gouley, of New York, by consent of the section, presented a specimen of "*Spontaneous Fracture of Vesical Calculus*," with the following history The specimen was from a patient 79 years of age, who had been under treatment a year or two for urinary trouble The patient first came under the care of Dr Dexter, of Washington, D C Suspecting that there might be stone in the bladder, he proceeded to gradually dilate the urethra with the view of subsequently evacuating it After four or five weeks of this treatment the patient suddenly passed several fragments of stone, eighteen or twenty in number Ten or twelve of these Dr Gouley now exhibited to the section Other fragments were passed at various times Afterwards there was a partial removal by Bigelow's apparatus, and subsequently cystotomy performed, when the patient died

The fragments were smooth, not water worn, and gave positive evidence, from their appearance, of fracture several months before their evacuation How did this happen? No authentic record of such cases is given He thought that the cause of fracture in this case was first erosion at some point, and afterward a sudden fragmentation of the stone

Dr Gouley's explanation of this mode of fracture is similar to what takes place in Prince Rupert's pearl, when eroded

Dr L A Sayre, of New York, did not think it possible for a stone to fracture spontaneously in the bladder, and asked if it had not been previously examined to determine its size, and if it were broken

Dr Thompson, of Washington, D C, had previously attended this patient, and had attempted to remove the stone by Bigelow's method, but failed He resorted to lithotomy, when the patient died in a few hours

The bladder of this patient was contracted to the size of a walnut, and in his opinion the fracture was due to contraction of the bladder and was not a spontaneous fracture

Dr Hutchinson, of New York, reported in this connection the removal of a mulberry calculus from a young man, which measured in length 1¾ inches and ¾ inch in diameter, presenting a complete fracture through its center, which had undoubtedly broken spontaneously No instruments had been used previously, nor was there any evidence of abrasion

Dr Prewitt, of Missouri, was of the opinion that the fracture in this case was due to contraction, as the stone was soft He did not think that Dr Gouley's theory would hold good

Dr Pollock, of Pennsylvania, reported the removal of 66 triangular shaped stones, weighing in all five ounces It did not occur to him that there had been any fracture in the bladder in this case, yet it might have been

Dr Dawson, of Ohio, thought that the stone must have been broken by the previous use of instruments, and could not think that there was sufficient force in the contraction of the bladder to fracture a stone, however soft it might be He had once removed a mulberry calculus larger than a hen's egg, that had never given much trouble previous to removal

STATE MEDICINE

A BILL FOR AN ACT TO PROVIDE FOR THE COMMITMENT OF THE INSANE *

Be it enacted—First, That the judges of the courts of each judicial district shall, jointly, nominate to the governor, within sixty days next after the passage of this act, two physicians in each county best qualified to act as Commissioners of Insanity

Second, That the governor, within thirty days next after the reception of such nomination, shall appoint the said two physicians to be Commissioners of Insanity in and for each of said counties respectively

Third, That the said two commissioners so appointed, together with the judge of the county court, in and for each of said counties, respectively, constitute the Board of Commissioners of Insanity for said county

Fourth, That the said Board of Commissioners have exclusive and complete jurisdiction of all matters pertaining to the commitment and custody of the insane, and power and authority adequate to the determination thereof

Fifth, That affidavit of alleged insanity be made to the clerk of the county — ex officio clerk to the Board of Commissioners of Insanity — to be reported by him to the judge of the county court — ex-officio president of the said board — within twenty-four hours of the date of the said affidavit

Sixth, That the alleged insane person be examined by each and all of the said commissioners, privately, publicly, separately or jointly, as may be deemed, by each, necessary to the determination of the truth

Seventh, That insanity be determined only by unanimous decision of the said Board

Eighth, That, in case of disagreement, the minority may demand, and the Board must grant, a re-examination

Ninth, That the said Board, having determined the insanity of any one, shall order his (or her) commitment, if curable, to a State hospital for the insane, if incurable, to a county asylum, or to such other custody as may seem best adapted to the circumstances of any special case

Tenth, That each of said Commissioners, so appointed, receive the sum of —— dollars for each and every case of alleged insanity examined by him, and in addition thereto the sum of —— —— for each and every mile necessarily traveled by him to and from the places of holding said examination, the same to be paid as fees to jurors hitherto

Eleventh, That the term of service of one of said Commissioners, so appointed, be three years, to be determined by lot, that of all others to be five years —in order that a majority of said Board may always consist of old members

Provided, That nothing in this Act shall be construed to prevent the trial by jury, as at present, of any alleged insane person who may, either personally or by his or her friends, elect that mode of examination, and that for all such cases the statutes now in force shall continue effective

HEALTH IN MICHIGAN, FEBRUARY, 1885.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the state, show the diseases which caused most sickness in Michigan during the month of February (four weeks ending February 28), 1885, as follows

Number of weekly reports received, 152		*For preceding month*
Diseases arranged in order of greatest prevalence	*Per cent of reports stating presence of disease*	*Per cent of reports stating presence of disease*
Neuralgia	80	82
Bronchitis	74	74
Rheumatism	72	75
Consumption of lungs	63	61
Influenza	61	60
Pneumonia	59	46
Tonsilitis	57	65
Fever, intermittent	47	50
Erysipelas	37	37
Diarrhœa	31	26
Inflammation of kidney	30	22
Intermittent fever	29	50
Inflammation of bowels	15	16
Scarlet fever	15	16
Whooping cough	15	18
Cerebro spinal meningitis	11	11
Diphtheria	11	16
Typho malarial fever	11	13
Membranous croup	10	14
Typhoid fever (enteric)	8	11
Measles	7	4
Inflammation of brain	6	9
Dysentery	6	6
Cholera morbus	5	5
Puerperal fever	5	4
Cholera infantum	3	2
Small pox	0 7	0

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[*] This form of a bill was proposed by a committee consisting of Drs Walter Hay Wm Hill, and E P Cook and approved by the Illinois State Medical Society in annual meeting, May 1883

For the month of February, 1885, compared with preceding month, the reports indicate that pneumonia and inflammation of kidney increased, and that intermittent fever and tonsilitis decreased in prevalence.

Compared with the average for the month of February in the seven years, 1879–1885, erysipelas and neuralgia were more prevalent, and intermittent fever, diphtheria, remittent fever, measles and scarlet fever, were less prevalent in February, 1885.

For the month of February, 1885, compared with the average of corresponding months for the seven years, 1879–1885, the temperature was considerably lower, the absolute humidity and the day and the night ozones were less, and the relative humidity was more.

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of February, 1885, at thirty-six places, namely: Albion, Alcona, Cadillac, Cedar Springs, Dexter, Detroit, East Saginaw, Grand Rapids, Harrisville, Holly, Hope tp., Ishpeming, Ithaca, Ingham tp., Kalamazoo, Leelanaw, Lexington, Marquette, Maple Valley, Muskegon, Muskegon tp., New Haven tp., North Star, Novi tp., North Muskegon, Otsego, Oshtemo, Oshtemo tp., Owosso, Pierson, Pierson tp., Port Crescent, South Bay City, Taylor, Winfield, Wyandotte. Scarlet fever at twenty-eight places: Adrian, Albion, Berlin tp., Burchville, Chester, Charlevoix, Detroit, Dover, Dundee, East Saginaw, East Tawas, Forest tp., Grand Haven, Grand Rapids, Homer, Kalamazoo, Kearney, Leelanaw tp., Lowell, Linden, Manistee, North Muskegon, Novi, Pentwater, Power tp., Pierson, Sheriden tp., South Haven, Vernon tp. Measles at East Saginaw, Detroit, Grand Rapids, Hopkins tp., and small-pox at East Saginaw and South Boardman.

HENRY B. BAKER, *Secretary.*

Lansing, Michigan, March 5, 1885.

FOREIGN CORRESPONDENCE

BERLIN LETTER

BERLIN, Feb. 24, 1885.

The Abdominal Surgery of Dr. A. Martin—Parametritis and Perimetritis—Cocaine in Reflex Neurosis—Litholapaxie—Emmet's Operation—The Lepra Bacillus and Bacilli in General.—The results of Dr. A. Martin's abdominal surgery, under the strictest antiseptic precautions are as follows: He has extirpated the kidney eleven times with four deaths; 105 ovariotomies with four deaths, one only being from sepsis. Out of sixty laparotomies thirty-one were healed without drainage, and twenty-nine with drainage. Of the thirty-one cases without drainage the mortality was 35.5 per cent., seven deaths being from sepsis. Of the twenty-nine cases treated with drainage the mortality was 24.2 per cent., four deaths being from sepsis. He operated the other day in a case of tubal pregnancy of exceptional interest. The patient was well on to six months, and the whole cyst was excised without rupturing the sac, the fœtal left foot alone protruding. It has been the fashion for many years among German gynæcologists to draw a sharp line of demarcation between *parametritis and perimetritis*, a custom which, happily, is now falling into desuetude. Emmet, practically, stated a far reaching truth in the last edition of his book, in refusing any clinical credence to this differential terminology. The theory of two distinct inflammations of the para-metrium and the perimetrium is not a sound pathological one, and is a very unsound clinical one. In a very popular little handbook, by C. G. Rothe on the disease of women, in high favor among German students, the author admits that there is no clinical distinction whatever, and that the treatment is the same in both cases. The most acute diagnostician will find it difficult to relegate the inflammation to the *cavum pelvis peritoneale*, or to the *cavum pelvis subperitoneale*, and for the matter if that, so far as the comfort and well being of the patient may be concerned, it does not make a particle of difference which peritoneale space is made to suffer. I am glad that one who is recognized as a leader has had the courage to raise his voice against such a meaningless multiplicity of terms. To all intents and purposes the entire profession accepted this view of the case years ago, when they adopted Emmet's treatment by hot water injections. Cocaine, in every possible aspect, was discussed to exhaustion, in the meeting of the medical society here January 14. At the previous meeting papers upon cocaine having been read by Dr. Heymann and by Dr. Schweigger, it was shown to act decidedly upon the sympathetic nerve, and to reduce the amount of blood sent to the part to which it was applied. With this in mind, it was found to be a valuable agent in reflex neuroses, with difficult breathing, such as asthma, etc. In hay asthma, the membrane over the turbinated bones is highly engorged with blood, and the peripheral terminations of the nerves are irritated by pressure—a local application will relieve all the symptoms for twelve hours or more. That it does diminish the amount of blood sent to a given part, is clearly shown in an iridectomy under an application of cocaine. If this remedy, locally applied, shall serve to relieve the severe spasms of hay asthma, its value can never be measured or estimated. At a meeting of the medical society, January 14 and on January 21, the operation of litholapaxy was very thoroughly reviewed and discussed. Dr. Furstenheim read a paper on a case of litholapaxy, opening with a history of the operations of Civiale, Heurteloup, Thompson, Bigelow and Otis, and going back into the times of Franco von Lausanne, von Pasquier, Gruithuisen and Cornay. He reviewed the discussions at the International Congresses of 1879 and 1881, and also quoted the remarks of Volkmann and Bergmann before the surgical section of Magdeburg: "Dass die Lithotripsie und Litholapaxie Methoden seien, welche in unsere aseptische Zeit uberhaupt nicht mehr hineinpassten." He approved the operation and recommended it highly. In the discussion that followed (full account can be seen in Nos. 6 and 7, Berliner

Klinische Wochenschrift) Dr Bergmann said that the operation was a difficult one, and only satisfactory in the hands of eminent specialists, that it was not suitable for the general practitioner, that pieces of stone were liable to be left in the bladder, and in short it was a damning with faint praise all through The paper and the discussions lasted through one whole sitting and part of another, and both are highly interesting reading In the *Wochenschrift* for February 16, No 7, there is an article on "Lacerations of the Cervix Uteri, with Pathology and Treatment," by Dr Felix Skutsch, first assistant of the Gynæcological Clinic in Jena, which is well worth the reading The operation is not yet a popular one in Germany, and chiefly, I take it because it has been handicapped with fulsome and illogical enthusiasm When gynæcologists openly advocate, as did Pallen, in the *British Medical Journal*, 1881, an operation in *every* case of laceration, they injure the very cause they wish to succor Emmet's operation, in the cases in which he himself would resort to it, is a much better surgical procedure than the cervical mutilation which is a part integral of gynæcological praxis in Germany The habit of snipping off cervices, or of artistically dissecting out half moon slices of the anterior or posterior lip, does not seem to me to be a commendable one, and if Emmet's operation was used *more* frequently and the German method *less* frequently, there would be fewer suffering women and many more good looking cervices than one now sees in the Berlin polikliniks In connection with Dr John Weeks, assistant at Emigrant Hospital, New York, and at Dr Knapp's Eye and Ear Infirmary, I have been much interested of late in bacilli culture—not a matter of any especial difficulty, but requiring time and patience In this work, in addition to the practical course of Dr Wolff, we have been much assisted by a little book published last December by Dr Albert Johne, professor of pathology at Dresden ("Ueber Die Koch'schen Reinculturen und Die Cholera Bacillen") I cordially commend this brochure to anyone who wishes to make these investigations for himself The Nahrgelatin can be bought here already sterilized, which saves considerable labor Of particular interest is it to notice the morphological and biological differences between the Finkler Prior bacillus and the comma bacillus of Koch Under the microscope they look considerably alike, save that the former are larger and fatter But in their development there is a very appreciable difference I hope to carry these cultivations through twelve or eighteen months I have been able to make some very good slides of phthisis, anthrax, pneumonia, Finkler Prior, comma bacillus, mic prodigiosus, etc , etc , at different stages of development, using aniline, fuchsin and methylene blue for coloring The comma bacillus requires a high power with oil immersion and Abbey condenser The fascination of this work is so great that one is very apt to become lost to the more practical professional studies, but it is very satisfactory to feel the ability to make off hand examinations of the sputa of patients supposed to have tuberculosis, or to pursue bacilli culture in the unoccupied office hours Dr Paul Guttmann, director of the Moabit Hospital, has an article on the bacillus of lepra in the *Wochenschrift* for February 6, and in the same journal for February 16 Prof Dr Th von Frerichs has an article on the great therapeutic value of the Franzensbad Some of our countrymen seem to leave their good manners, if they ever had any, far behind them as soon as they land upon foreign soil A medical man, a graduate of four or five years' standing, recently landed in Berlin, and with a herald of self-imposed titles announced himself to Dr Lassar He wished an entire course for himself alone The doctor had not the time, so he took the liberty of all the courses, hospital, etc , acted as assistant, and was to hand Dr Lassar, as the necessary honorarium for such extra attention, one hundred marks He was treated most politely, was a guest in the houses of the assistants, and every facility was extended to him He entertained the staff with accounts of his large practice—so large, indeed, that he was obliged to come abroad for his health—of the elaborate house he was building, and upon the termination of his course he left Berlin without paying his fees, and without saying adieu to those who had been so courteous All this was told to me by Dr Lassar himself at a dinner party recently given by Prof Gusserow These things mortify me, I am jealous of my countrymen's honor and of their high professional attainments H J B

BOOK REVIEWS.

A SYSTEM OF PRACTICAL MEDICINE BY AMERICAN AUTHORS Edited by WILLIAM PEPPER, M D , LL D , Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania Assisted by LOUIS STARR, M D , Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania Vol I —Pathology and General Diseases Large 8vo, pp 1094 Philadelphia · Lea Brothers & Co 1885

The profession has looked for the appearance of this first volume of the American system of medicine with considerable interest for the past three years As may be seen from the title page, the editor has selected his contributors entirely from the cis-atlantic writers, and the first volume is a sufficient guarantee that he has chosen wisely The selection of the authors has been restricted to the United States and Canada, not because of any want of recognition of the importance of the studies of certain special subjects by European investigators, but because it was felt that the proper time had arrived for the presentation of the whole field of medicine as it is actually taught and practiced by its best representatives in America

The opening chaper of this volume is by Dr. Reginald H Fitz, of Boston, on General Morbid Processes, an article of ninety pages, comprising a consideration of inflammation, thrombosis and embolism, effusions, degenerations, tuberculosis and morbid growths The second article is from the pen of Henry Hartshorne, M D , on General Etiology, Medical Diagnosis and Prognosis, which, on account of the usual masterly manner in which this writer treats his subjects, will well repay careful reading

Of the third article, Hygiene, by Dr John S Billings, it is to be regretted that our limited space will not allow an extended discussion Dr Billings is an authority in all matters of hygiene, and whatever he writes on the subject is worth reading , and so little attention, comparatively, is given to this subject by the general profession of this country that we are always glad to call attention to a good article on the subject

Closely connected with the article just referred to, and immediately following it, is one on Drainage and Sewerage in their Hygienic Relations, by George E Waring, C E Here then, in these two articles, which together do not comprise 60 pages, we have a succinct account of the principles of personal and public hygiene, and the relations of drainage and sewerage to hygiene

In the second part of this volume we find a discussion of General Diseases, from Specific Morbid Agents Operating from Without Dr James H Hutchinson discusses Simple Continued Fever, Typhoid Fever, and Typhus Fever in 107 pages These articles are followed by one on Relapsing Fever, by the editor, and this by a paper on Variola, by Dr James Nevins Hyde, who also contributes the articles on Varicella and Erysipelas Vaccinia is described by Dr Frank P Foster and Scarlet Fever by Dr J Lewis Smith The articles on Rubeola and Rotheln are by Dr W A Hardaway, and those on Malarial Fevers and Yellow Fever are from the pen of the gifted and lamented Bemiss It seems peculiarly appropriate that his last contributions to the literature of the profession which he loved and adorned, and to which he has added so much, should be published in such a work

The articles on Parotitis and Pertussis are by Dr John M Keating That on Diphtheria is by Dr Abraham Jacobi In view of the prospect of a visitation of cholera to this country, the article on this subject by Dr Alfred Stille will be read with great interest, as he may be regarded as one of the few authorities on the subject in America Two of the most readable papers in this volume, both on account of their historical and clinical interest, are those on Plague and Influenza, by Dr James C Wilson, of Philadelphia In addition to his article on cholera, Dr Stille contributes one on Epidemic Cerebro Spinal Meningitis

Dr James C White contributes the article on Leprosy, Dr H D Schmidt that on Dengue, and the three on Rabies and Hydrophobia, Glanders and Farcy, and Anthrax (malignant pustule), are by Prof James Law Dr B A Watson devotes about 40 pages to the discussion of Pyæmia and Septicæmia, and Dr Wm T Lusk gives a most able article on Puerperal Fever The concluding article, on Beriberi, is by Dr Duane B Simmons, of Yokohama, Japan

It is seen from the above cursory examination of the first volume that the work is most comprehensive in its character Indeed, it may be said that the whole field of medicine, save obstetrics and pure surgery, has been or will be treated of in detail In a later volume will be found a chapter on gynæcology, in which will be presented a series of articles by eminent specialists on the subjects of chief importance to the general practitioner These articles will be written with special reference to the constitutional relations of the subjects and their bearings on associated morbid conditions As has already been mentioned, puerperal fever is treated of in the first volume In subsequent volumes will also be found articles on tracheotomy, the diseases of the rectum and anus, and those of the bladder and male sexual organs Several distinguished specialists will also contribute articles on medical ophthalmology, medical otology, and dermatology A reference to the articles by Prof Law will show that in discussing hydrophobia, glanders, anthrax, etc , he has given a full exposition of these diseases as occurring both in man and in the lower animals, thus providing the general practitioner with authoritative information on the points of veterinary science which have a direct practical bearing on morbid processes in man

As regards the first volume, then, the editor may safely congratulate his collaborators and himself that the work is an eminent success in every respect And the publishers have nothing to regret as regards the make up of the book, it bears evidence of their usual good taste and elegance A most notable feature is the voluminous index to this volume W G E

BODILY DEFORMITIES AND THEIR TREATMENT A HANDBOOK OF PRACTICAL ORTHOPÆDICS By HENRY ALBERT REEVES, F R C S E , Surgeon to the Orthopædic Hospital, to the East London Children's Hospital, and to the Hospital for Women, Senior Assistant Surgeon and Teacher of Practical Surgery at the London Hospital 8vo, Pp xii, 460, with 228 illustrations Philadelphia P Blakiston, Son & Co 1885 Chicago W T Keener Price $2 25

This latest contribution to the literature of orthopædic surgery, is the first of a series of monographs on the various departments of surgery, medicine, and gynæcology, of a comprehensive and concise character As stated by the author in his preface, with the exception of works on some of the sections of orthopædic surgery, by well known orthopædic veterans, no book of any authoritative character, *i e* , founded on a large special and general experience, has, for many years, appeared in Great Britain Nor is there, so far as he knows, a work in any language dealing with orthopædics, in its modern sense, and this gap he has endeavored to fill by the work under consideration

The book is divided into five parts with an appendix Part I is devoted to a general consideration of orthopædic surgery, and to rickets, surgically considered In his general discussion of the subject of orthopædic surgery, the author explains that he has devoted no part of this volume to joint diseases and other subjects, such as harelip, cleft palate, and plastic surgery generally, which, though properly treated of by some surgeons as orthopædic subjects, are large enough to claim a volume to themselves in this series, without necessarily encroaching on other surgical domains, and he therefore confines himself to the consideration of the pathology, diagnosis and treatment of the deformities of the spine, and of the upper and lower limbs It may be remarked, however, that he does give a short chapter, each, to deformities of the nose and ear, and to contractions and depressed cicatrices

In regard to the prophylaxis of deformities, Mr Reeves calls attention to the value of out-door exercise, and especially to gymnastics, and, also, as regards children, to the faulty positions in sitting, writing, etc , which are so productive of deformities Holding, as he does, the opinion that local and general gymnastics are valuable adjuncts in the prevention and treatment of bodily deformities, it is quite natural that he should regard Sir James Paget's objections to gymnastics as grounded on misconception In speaking of the difficulties which sometimes arise in making a diagnosis of spinal curvature, he says "The importance of having a large experience and knowledge of all branches of our profession before any one has a right to consider himself either a competent general or special practitioner is, in such cases, well exemplified General knowledge, if sufficiently deep, cannot but make a better specialist In discussing the treatment of spinal curvature, he lays stress on the importance of instructing parents and the public generally, and school teachers particularly, as to providing properly-constructed desks and stools, and also on the value of well-devised gymnastic exercises, especially in the case of young girls As a part of the apparatus for the treatment of lateral curvature, he recommends the couch which was described by Mr Lund in a recent number of the *British Medical Journal* In this connection, also, he devotes several pages to a consideration of orthopædic gymnastics In describing spinal instruments, he says he regards them only as valuable adjuncts, if they be trusted to alone, disappointment will be the result "It must also be recollected that if only the support be worn without appropriate gymnastics, the muscles are not properly exercised, and the atrophy, which naturally occurs in scoliosis, will by their means be assisted to progress" Again he says "I regard spinal supports as of undoubted value as accessories, but to be of service, they must be applied with sound orthopedic knowledge and surgical discernment, and, moreover, they must be constructed on just mechanico anatomical principles Those instruments which act solely on the principle of extension are useless, those which act on the principle of uniform pressure, like Sayre's bandage, are worse than useless, as a rule, because they can never unfold a curve, and, according to my experience, and that of others, they even fail to maintain the extension of the spine which has been produced by the suspension apparatus "

Mr Reeves again crosses swords with Sayre in regard to his treatment of spinal caries, and we can but think that the non-success of his methods at the Royal Orthopædic Hospital is due to the fact that our English *confrere* has not fully grasped the details of Sayre's methods

In regard to the treatment of spinal abscesses, he calls attention to the posterior incision operation performed in Germany a few years ago by J and E Bœckel, and by Israel and Reclus in France, and more recently in England by Mr Frederick Treves, who has given anatomical guides for its performance (His paper may be found in the Proceedings of the Medico-Chirurgical Society of London, for 1884) Mr Reeves has performed this operation in one case with a temporary benefit Of this method of dealing with spinal abscesses he says that it is quite young and on its trial, but it seems to be a good and rational proceeding in cases in which it seems clearly indicated, although some of the cases in which it has been performed have only been benefited temporarily, and several have succumbed

Under the head of paralytic equino-varus the author, in referring to the fact that a suitable talipes shoe must be worn for some time, describes and gives a cut of one which, since it answers for all forms of ordinary talipes, he calls the Universal Talipes Shoe That it meets the requirements is sufficiently attested by the fact that the maker has sold more than five hundred of them to various hospitals since he first called attention to them in the *Medical Times and Gazette* In severe cases an outside toe spring is attached, so that the foot can be still further everted He describes the following operation which he performed in a severe case of old double equino-varus The patient was a boy, aged eleven After having anæsthetized him and applied Esmarch's bandage, the left foot was firmly fixed while its inner border was well stretched by an assistant, and the usual tenotomies before and behind the ankle were done Then the plantar fascia, abductor pollicis, and all tense fascial bands were divided, and considerable force used to rectify the deformity The foot was immediately put into plaster of Paris in the corrected position, and when, at the end of three weeks, the plaster was removed, it was found that the inversion, though much improved, was not entirely corrected, he divided the other tense bands and the tendo Achillis Forcible manipulations brought the foot into good position, though the heel could not be brought completely down The foot was again put up in plaster, and fixed to a back splint with a rectangular foot-piece For the right foot, after the preliminary tenotomies, an incision two inches long was made on the lower inner border of the foot, and joined at each end by others about an inch long across the sole, and a flap of skin and subcutaneous tissue reflected outwards The abductor pollicis was thus exposed and pulled inwards, and the tarsal ligaments which prevented correction of the deformity were divided The plantar fascia was then divided through the opening, and it was found that the inversion could be almost entirely corrected The tendo Achillis was divided, but the same difficulty in bringing down the heel was encountered The foot was put up in a flexible metal splint These operations were eminently successful

Considering the size of the book, the chapter on genu valgum and osteotomy is very full and complete, and one of the best diagrams in it is one of the bones of the knee-joint, showing the lines of bony section in the various operations of Annandale, Ogston, Reeves, Barwell, Meyer, Schede, McEwen, Chiene, etc He states that he has followed McEwen's directions as regards the site of the operation in three cases, but in several he has operated from the *outer* side, which modification he considers preferable In this chapter he again describes his *diaphysial* operation, the first account of which was published by him in the *British Medical Journal* in 1881, since which time he has almost invariably adopted it, and by it has succeeded in correcting severe deformities It consists in dividing the femur from the *outer* side at the junction of the middle and lower thirds He does not use Esmarch's bandage in the operation, nor the spray, nor antiseptic dressings, and he makes it a point not to change his chisel unless it becomes blunt The after-treatment consists in leaving well enough alone, and not removing the plaster until the bone is consolidated, which is usually in four or five weeks Passive motion of the knee is then resorted to, and the patient allowed to walk on crutches for a short time longer, and then discharged cured Mr Reeves gives a table of 493 osteotomies performed by him in the last ten years, there have been no deaths, no joint suppuration, and no anchylosis, all the cases made good recoveries, with good position and motion He has always used the chisel, and has never removed any bone

Though we have already said more in regard to this work than our limited space could well permit, we have not given it the space which it merits It contains a consideration of some subjects which are quite new to works on surgery The work is evidently written from the standpoint of a general surgeon interested in a special domain of surgery His treatment of the pathology of the deformities which he considers is especially interesting In the consideration of club-foot he has adopted a more correct and natural nomenclature and classification than is in common use, and we are glad to see it In the chapter on the deformities of the nose and ear he describes a new and successful operation for nasal depression, and suggests another for the nasal bones, both of which show great ingenuity If the succeeding volumes of this practical series are as well written and as instructive as this, the writers may feel assured that they have not written in vain, and the publishers that they are giving each buyer the full value of his money The book is completed by a good index

W G E

Topographical Anatomy of the Brain By J C Dalton, M D , Professor Emeritus of Physiology in the College of Physicians and Surgeons, New York, and President of the College Cloth Vols I, II and III Large folios Philadelphia Lea Brothers & Co 1885

The three large and elegant folio volumes of Dr Dalton's Topographical Anatomy of the Brain are evidence that he has not retired from active and useful work since he resigned his professorship in the College of Physicians and Surgeons An authoritative work on cerebral topographical anatomy has long been wanted, and though this subject has been the field of much fruitful investigation, it will still repay the labor of further work and research Now that the localization of cerebral properties and functions have become prominent factors in neurology, it is more important to know the precise anatomical limits and relations of the corresponding parts, in order that they may be recognized with certainty, and the extent of their morbid alterations more readily determined

The author has pursued in this work the plan of studying the relations of the different portions of the encephalon by means of successive sections of the entire brain, the sections being made in such close proximity to each other that the continuity of the parts is readily recognized, and hence the structural variations may be followed *seriatim* from one point to another In the preparation of the plates the views of the brain and brain sections were first photographed, under the supervision of the author, from fresh specimens prepared by him Heliotype transfers were then made from the negatives, and the plates printed by the heliotype process The plates bear ample testimony to the care expended upon them Accompanying each plate is an outline sketch, made from tracings by Dr Richmond Lennox, of New York, which renders possible the intelligent explanation of the plate

With most commendable good judgment the author devotes a great part of his introduction to a description of the methods and apparatus employed for making the brain sections, for preparing the brain, etc , the remainder being taken up in a short explanation of the nomenclature used in this work, in a description of the external configuration of the brain, of the convexity of the hemispheres, of the insula, the median surface of the hemispheres, and of their inferior surface—in short a general anatomical consideration of the brain

The first volume contains ten plates Series A, The Exterior Convolutions of the Brain, the second, series B, Horizontal Sections, and the third, series C, Vertical Sections, containing fifteen and twenty-three plates respectively Of the plates and outline sketches we cannot say too much in praise Besides being most beautifully executed, it is almost impossible that they should be otherwise than faithful representations, as a good camera in the hands of Mr O G Mason, the photographer to Bellevue Hospital, who took the negatives for these plates, very rarely makes a mistake The plates in the first volume are of the upper surface of the hemispheres, the lateral surface of the brain, the operculum, the insula, a longitudinal section through the gyrus hippocampi and lenticular nucleus, median section of the brain, showing right and left halves, the median surface of the left hemisphere, the inferior surface of the brain, and the inferior surface of the hemispheres The plates in the second volume are Horizontal section, thirty millimetres below the upper surface of the hemisphere, and twelve mm above the corpus callosum, horizontal section, seven mm above the corpus callosum, section two mm above corpus callosum, section through corpus callosum and upper part of corpus striatum, section through fornix and operculum, three successive sections through corpus callosum and the commissures, sections through the anterior commissure, the tubercula quadrigemina, the corpora mammillaria, crura cerebri and fourth ventricle, through the optic chiasm and tubar annulare, through the lowermost part of the frontal lobes and Pons, through the temporal lobes and Pons, and throught the anterior, middle and posterior commissures

The plates of the vertical sections are most numerous—twenty-three representing two vertical sections through the frontal lobes, thirteen sections through the corpus callosum, from the points of the temporal lobes anteriorly to the posterior border of the corpus callosum, six sections through the lobulus graduatus, and one through the ends of the occipital lobes, all the sections being made at intervals of five millimetres, and the plates showing, in each case, the posterior surface of the anterior segment

In the descriptive part of these volumes, the names commonly used in cerebral descriptive anatomy are retained, as a general rule, as they seem, notwithstanding the frequent incongruity and inaptness of their etymology, to be most serviceable on the whole, most of them are so fixed by usage that it would lead to endless confusion to change them

Dr Dalton has given us an excellent work, it is difficult to say whether the plates or the explanatory text are most to be admired For the student, or for the teacher of cerebral anatomy or physiology, it will be an invaluable aid, easily dividing the honors with Allen's System of Anatomy When we have said that the general "get up" of this work is a little better than the usual style of the well known publishers, we have said all that can be said W G E

Pyuria, or Pus in the Urine, and its Treatment, comprizing the diagnosis of acute and chronic urethritis, prostatitis, cystitis and pyelitis, with especial reference to their local treatment By Robert Ultzmann, Professor Vienna Polyclinic Translated by Walter B Platt, F R C S New York Appleton & Co, 1884 Pp 98

This is a small volume, giving a very fair outline of the Vienna method of diagnosing and treating gonorrhœal troubles and pyelitis It is particularly valuable from the standpoint of critical diagnosis The main conclusion to be derived from reading this little book is that German practice is in substantial accord with American in the treatment of chronic gonorrhœa, and has in fact followed it

We find here a complete recognition of the presence of inflammation in the deep layers of the urethra, constituting what Otis calls "strictures of large diameter" The writer adopts the latter's views as to the use of large instruments, etc, with proper credit to Prof Otis

The closing chapter is devoted to the therapeutics of pyuria, and contains numerous formulæ and suggestions of value E W A

Lectures on the Principles of Surgery By W H Van Buren, M D, LL D, formerly Professor of Surgery, Bellevue Hosp Med Coll, etc, etc Edited by Lewis A Stimson, M D, Prof Surg Univ City of New York New York D Appleton & Co, 1884 Pp 588 Jansen, McClurg & Co, Chicago

This is a posthumous work of the late eminent Dr. Van Buren, and consists mainly of his college lectures, for which he was justly celebrated Prof Stimson has made only verbal changes in the text, leaving each lecture just as it was delivered or read in its final form Many of these, we are told, were worked over assiduously, having been written and re-written several times, and much improved, in the last fifteen years of his life

This work must have especial value to former pupils of Dr Van Buren It is not a complete treatise and contains but few wood cuts, it is nevertheless a systematic course in surgery, and would serve as a good introduction to surgical literature for students Some might find it incomplete, however, for final examinations The style of these lectures is attractive, as are all the writer s books, and to most practitioners it would be useful as a reference book

E W A

An Introduction to Pathology and Morbid Anatomy By T Henry Green, M D London Fifth American, from sixth English edition Illustrated Published by H C Lee's Son & Co, Philadelphia

This book, in its several editions, is so well known to the profession that an extended notice is unnecessary It is one of the most readable text-books on the subject Numerous additions and changes have been made in this edition The introductory chapter, and those on tumors, regeneration, septicæmia, pyæmia, and vegetable parasites, have been written by Stanley Boyd New illustrations have also been added to this edition

The work does not cover as much ground as Ziegler's or Coats' recent pathologies It, however, considers general pathology with fullness This edition will undoubtedly be received with the same welcome by the profession as have been the others

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The Elements of Pathology By Edward Rindfleisch, M D Translated from the first German edition by Wm H Mercur, M D Revised by James Tyson, M D Published by P Blackiston, Son & Co, Philadelphia

This little volume is not intended to be a complete treatise on pathology, but rather "to establish the natural groundworks" of the science Pathological histology is not here treated of, but rather the functional changes which precede anatomical changes The relation of lesions to each other is made especially plain

The work is excellent and forms a valuable companion book to the usual text-books on pathology It covers ground with which it is desirable that all students should be familiar, and which is not so fully discussed in other text-books

MISCELLANEOUS

HARVEY'S MANUSCRIPT LECTURES

To THE EDITOR OF THE LANCET

Sir —The MS of the original lectures at the Royal College of Physicians by William Harvey, including his earliest observations on the heart and circulation, and delivered by him in and after 1616, were rediscovered in the British Museum in 1877 I gave a description of the little book, and exhibited an autotype copy of one page in my Harveian oration at the College in 1877 I then suggested that it would redound to the honor of the present generation, and be an advantage to the history of medicine, if the whole of the lectures could be published in autotype, accompanied by an intelligible transcript The handwriting is so crabbed, and there are so many abbreviations, that no one but an expert could succeed in understanding them Without the valuable aid of Mr Bond, now the chief of the British Museum, I should have failed in my attempts to understand much, if anything, of the lectures By dint of severe labor Mr Bond succeeded in interpreting one of the lectures, and has now been good enough to make me acquainted with a gentleman who will undertake to transcribe the whole of the lectures My inquiries lead me to believe that no publisher could be found to undertake the risk of publication in the form proposed, unless guaranteed a certain amount of professional support On the other hand, I calculate that if from two to three hundred gentlemen would engage to each take a copy at a price not exceeding two guineas, the work might be safely proceeded with Autotyping is a much more expensive process than ordinary printing, and the honorarium to the transcriber would necessarily add considerably to the cost

May I ask your permission to submit the question to my professional brethren through your journal whether they will aid in this labor of love of, and admiration for, our great prototype of the scientific physician? I am permitted to state that the Presidents of the Royal Colleges of Physicians and Surgeons warmly support the undertaking

I am, sir, your faithful servant,
EDWARD H SIEVEKING, M D

17 Manchester Square, W, Feb 2, 1885

P S Any communications on the subject may be addressed to me, or to Messrs Churchill, 11 New Burlington street, W

A NEW SEPTIC ORGANISM —At the meeting of the Royal Microscopical Society, on February 11, Dr Dallinger gave his presidential address on a new septic organism It is a monad, which he has observed in an infusion of rabbit in which a piece of codfish had been macerated It is a very small, oval organism with six flagella, two on each side and one at each end, measuring about one ten-thousandth part of an inch in length, and about half that in breadth It could be seen sweeping and destroying putrescible matter, increasing, at the same time, very rapidly in numbers Besides dividing by fission, it also multiplies by producing spores, after the apparent conjugation of two individuals, one being applied to the other, and the two being gradually fused together The resulting organism was swollen, and its protoplasm soon became broken up into minute granules It still continued to swim about, however, but after a time its motions became slower, and it could be seen to drop a continuous stream of granules, the spores, and ultimately to die and disappear The development of these granules into the adult monads could also be traced —*British Medical Journal*, February 21, 1885

AMERICAN MEDICAL ASSOCIATION—SECTION OF PRACTICE OF MEDICINE AND MATERIA MEDICA

HOTEL AUBRY,
BOSTON, MASS, March 5, 1885

DR N S DAVIS

Dear Sir —Will you please insert this card in your journal Gentlemen desiring to read papers before the medical section at the meeting of the Association in New Orleans next month, will confer a favor by reporting the titles of their papers as soon as possible Very respectfully yours,

G M GARLAND,
Secretary of Medical Section

COLLECTIVE INVESTIGATION IN GERMANY —The *British Medical Journal* states that the results of the attempt to obtain information by means of an organization similar to the Collective Investigation Committee of the British Medical Association, under the auspices of the Medical Society of Berlin, have been published, and they certainly show that the medical practitioners of scientific Germany are, if anything, less easily aroused to participation in such work than their brethren in practical England

Although the immediate scientific results of this method of collecting information may not be great, the indirect educational value of the organization is immense, and if persevered in must lead, first, to a wider interest in scientific problems, and secondly, to a much more extensive and intelligent cooperation in the work

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AMBULANCE CLASSES IN SCOTLAND —At Lockerbie, in Dumfriesshire, Scotland, an ambulance course has been arranged for women, and another for men, there are fifty in the women's class, and almost one hundred in the men's They are under the auspices of the St John's Ambulance Association

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MEASLES IN NEW YORK —The *Medical Record*, of March 7, states that during the past four months there have been 2,152 cases of measles in New York, with 402 deaths

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THE MARY FLETCHER HOSPITAL —Mrs Mary Fletcher, of Burlington, Vt, who founded the hospital which has her name, died recently, and left $200,000 to it

Pleuro Pneumonia in Missouri —Advices from Fulton, Mo , of March 7, state that pleuro-pneumonia has developed in a herd of Jersey cattle belonging to the State Lunatic Asylum at that place, and that eight cows have died within a month and others are sick

It is alleged that the infection was communicated by a bull purchased last July in Peoria, Ill As soon as the animal was known to be infected it was isolated from the herd, but the contagion had spread with the above results

Dr Trumbower, of the Agricultural Department at Washington, has been in Fulton for several days and made a thorough examination of the herd He declares that the disease is pleuro-pneumonia, and advises the killing of the entire herd Effective measures will be immediately taken to prevent the spread of the disease outside of the herd affected

An Important Change in Asylum Administration —The *Medical Record*, of February 7, states that the managers of the Morristown N J, Insane Asylum have decided to place the business management of the Asylum in the charge of a warden, and to put the medical department under the care of a "competent alienist of advanced views, to be called the Medical Director," with four medical assistants This change, says the *Record*, is a radical and significant one Its success depends upon whether the warden and the medical director can work together harmoniously

Bellevue Hospital Medical College —At the commencement exercises of this college, held on Monday, March 9, one hundred and thirty-four graduates received the degree of Doctor in Medicine The address to the graduating class was made by Mr Andrew Carnegie, who recently gave the college $50,000 with which to build laboratories

Measles in Montreal —Reports from Montreal state that a severe epidemic of measles is now prevailing in that city Adults as well as children are among its victims

The University of Nashville —The commencement exercises of this institution were held on February 26 The graduating class numbered one hundred

The Memphis Hospital Medical College — The fifth annual commencment of this college took place on the evening of February 25 Thirty-three graduates received diplomas

State Sanitary Inspection —In connection with our editorial on this subject, we beg leave to call the attention of the State Board of Health to the fact that fourteen grown colored people, male and female, are living in a hovel, 12×16 feet in size, in Bloomington, in this state

The College of Physicians and Surgeons, of Chicago, held its third annual commencement exercises on Tuesday, March 10 Sixty graduates received the degree of Doctor in Medicine The doctorate address was delivered by Prof J J M Angear In the evening a banquet was given at the Sherman House

The Index Medicus —The *Maryland Medical Journal* says that it is stated that the *Index Medicus* will be published by George S Davis, of Detroit

The University of Louisville —The commencement exercises of the medical department of this institution were held on the afternoon of Tuesday, March 3 The degree of M D was conferred on seventy-four graduates

The Southern Plague in South Carolina — The daily papers state that what is reported to be a disease similar to that which carried off so many people in Kentucky and West Virginia last fall has broken out in Lancaster county, South Carolina, on the border of North Carolina The disease first appeared in the family of R W Draffin, and the wife and four children died Only Draffin and a son survive The disease has attacked thirteen people in the neighborhood of Draffin's, and is spreading Its first appearance is in the shape of violent nausea and bloody flux, and severe gripings quickly follow The pain is intense, and the disease generally causes death within three days from the time it seizes its victim

The presence of a disease of so alarming a character has naturally created much excitement among the people, and as Lancaster county adjoins Mecklenburg, North Carolina, some apprehensions are felt there also Eight or ten doctors have visited the vicinity where the epidemic is raging, and they pronounce the disease unlike anything they have ever seen

Cocaine in Vaginismus —Two or three cases have been reported, says the *Boston Medical and Surgical Journal*, of March 5, in which cocaine has been used with good results in vaginismus The temporary character of the anæsthesia was yet sufficient to allow of impregnation, which had before been impossible

The West Virginia Board of Health Law — It is stated that an effort is being made, by some who have been debarred by the action of this law, to induce the present Legislature to repeal the same There is, however, slight probability that it will be done

Professor John W Mallett, who was elected to fill the vacancy in the chair of chemistry in the Jefferson Medical College, caused by the death of Professor Rogers, has resigned his position and has been reelected to his former chair of chemistry in the University of Virginia

ADDITIONAL FACTS IN REFERENCE TO RAILROAD RATES TO THE NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION

Rates for New Orleans are now definite and fixed, and fortunately they are very low, being based upon a round trip rate of $20 from Chicago, $15 from St Louis, and a correspondingly low rate from Cincinnati, Louisville, Nashville, Memphis, several cities throughout the East, and doubtless from other points Physicians, and members living in the north and northwestern states, adjacent to the Illinois Central railroad, desiring tickets for themselves and families, can be furnished to coupons stations, or rates may be had at any point upon application to the ticket agent who will obtain same from his General Passenger Agent, which will be good for thirty days with stop over privileges

In this connection it may be well to state that living expenses in New Orleans vary considerably Good cleanly accommodations can be secured for $1 50 or $2 per day In some instances, as we have been informed, this will include breakfast and supper A special excursion has been arranged to leave Chicago on the above named road, Saturday evening, April 25, at nine o'clock, which will run direct (without change of cars), to New Orleans in thirty-six hours Several minor excursions have also been arranged for, at a nominal expense, to occur during your "stay" in the crescent city, among which will be a delightful "trip" along the Gulf coast to Mobile, passing Biloxi the oldest city on the coast, Pass Christian, an elegant resort, and other points of special interest Ample time will be given at Mobile to visit places of national historical interest A trip to the historic city of Vicksburg is contemplated, also a *sail* down the "Father of Waters" The World's Fair will undoubtedly repay one most profitably in a thorough visit to this great center of attraction, but in viewing all the many sights before you, we trust the various sessions of the meeting will be largely attended and the discussions spirited, and participated in by all who attend them

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THE STATE MEDICAL SOCIETY OF ARKANSAS — The tenth annual session of the State Medical Society of Arkansas will be held at Little Rock on Wednesday, Thursday and Friday, April 22, 23 and 24, commencing at 10 A M

Each county or municipal society shall be entitled to one delegate for every five members and one for a fraction over five

The subjoined are the committees to report at the meeting

Committee on Medical Education —W N Yates, chairman, A B Moore, H B Williams, W P Hart, W A Amis, D S Drake, L Kirby, W A C Sayle, E H Alexander

Committee on Practice of Medicine —J J McAlmont, chairman, J A Dibrell, Sr, T D Nichols, D C Ewing, J F Simmons, H H Turner, J P Mitchell, I Fulsom, J D Jordan

Committee on Surgery —W B Lawrence, chairman, E R Dibrell, J F Blackburn, A P George, J M Keller, G W Hudson, J D Jordan, R G Prewitt, A J Vance

Committee on Gynæcology —R S Wallis, chairman, A J Pulliam, J T Jelks, R N Ross, J S Shibley, G C Head, C L Kirkscey, D S Williams, A B Loving

Committee on Medical Legislation —Z Orto, chairman, P O Hooper, W B Welch, E R DuVal, A N Carrigan, F G McGavock, R G Jennings, A A Horner, W H Hawkins

Committee on Necrology —D S Mills, chairman, A N Hathcock, N F Thomason, T J Draper, D S Drake, J N Glover, S W Allen

Board of Visitors to the Medical Department of the Arkansas Industrial University —J M Keller, chairman, Z Orto, W W Hippolite, W J Watkins, W A C Sayle

Committee on Publication —L P Gibson, ex officio chairman, T E Murrell, J A Dibrell, Jr, R B Christian

Delegates to American Medical Association —P O Hooper, chairman, J M Keller, D C Ewing, T E Murrell, R G Jennings, J R Dale, J T Jelks, J A Dibrell, Sr, W N Yates

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OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, UNITED STATES ARMY, FROM FEBRUARY 28, 1885, TO MARCH 6, 1885

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Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

Vol. IV Chicago, March 21, 1885 No. 12

ORIGINAL ARTICLES

THE CONSERVATION OF ENERGY AND CONSERVATIVE GYNÆCOLOGY

BY HORATIO R. BIGELOW, M.D.,

OF WASHINGTON, D. C.

Read before the Boston Gynæcological Society.

There may seem to be some incongruity in the caption of this paper, a juxtaposition of terms that can have no possible relation each to the other; or, it may be, an entire misconception of what is meant by the Conservation of Energy. The argument from general laws of physics to similar laws in the individual, is not an unusual or an improper one. We know a force, not in the concrete, but from outward and tangible evidences. As an abstract term we can conceive it only as an originator of molecular action, which, once instituted, is never lost.

Life itself, its highest equivalent, may be resolved into protoplasmic change or motion, governed by a a limitless force beyond that point of inchoate consciousness at which the finite is always arrested. This force infinite, of which our knowledge of finite force is but the offspring, is intelligent, since it creates intelligence as made manifest in consciousness. This does not assume a creative or potential molecule, but the harmonious blending of molecules into creative intelligence, of which science cannot fathom the mystery, though it may recognize the existence of it as a *force*. Instead, then, of reading the "conservation of energy," it might in a large sense be called the "conservation of life," so that the second clause of the heading would be associated as a cause in the production of that end. While carried to its ultimate issue this might be correct, yet it is better for purposes of discussion to restrict the intention to a manifestation of potency only, so that my desire resolves itself into a study of the relationship between conservative gynæcology and the husbanding of strength. Intelligent conservatism and meddlesome interference is the antithesis that I wish to make very strong.

The expectant plan in gynæcology, as well as in general practice, is sometimes a safe one to follow. Typhoid fever, pneumonia, and some other conditions are oftentimes best treated by being left *untreated*, in so far as medicine assumes prominence. Hygiene, and with it intelligent nursing, are the sheet anchors of the physician. Particularly does such a course seem desirable when pathology is assuming such new forms that logical therapeusis is out of the question. Symptoms are combated without any absolute knowledge of the primary cause of the disorder. Fever, its cause and effect; its relation to the great nervous centers, and the relation of these centres themselves as originators of fever; the inflammatory conditions of fever, and the relationship of the cardiac nerve centres to febrile excitation—all these points are very imperfectly understood. Does nervous derangement depend upon the fever by which it is accompanied, or is the rise in temperature and the abnormal pulse due to a primary lesion of the central nervous organization? Until our knowledge of these things is absolute, the expectant plan is a logical one. The disease may have a tendency to cure itself, and the conservation of energy will depend upon the proper adjustment in equilibrium of other forces, which is best done, and only well done, by furnishing to the system certain equivalents out of which this energy may be evolved. Easily digested food, which shall furnish nourishment and heat, stands first in order.

If all this be true of general medicine, it is doubly so of gynæcology. There are many reasons which conspire to make this otherwise invaluable specialty a matter of ridicule to many of our professional friends. In the first place many men in country practice have delivered between one and two thousand women, some more and some less, without so much as knowing of the antiseptic rules which are now perplexing erudite medical societies, and without ever having to record a case of puerperal fever. I know of two men, one in Maine, and one in New Jersey, with such histories. Again, there are scores of general practitioners who are governed in their special practice by text-books, and they have lived to find that pessaries, as a rule, are humbugs; that intra-uterine injections are often fraught with much danger; that women may have dyspepsia and functional cardiac derangements without uterine trouble; that oophoritis if treated with patience and persistence may be relieved without recourse to surgery; and that many of the numberless complaints of minor importance, which are the necessary outcome of any departure from a normal condition of a female sexual apparatus, may be overcome by the observance of simple rules without recourse to elaborate interference; and that a woman may be the happy mother of healthy children and enjoy an average share of good health while carrying about with her a cervical laceration. The danger of specialism is the overlooking of intercurrent

ADDITIONAL FACTS IN REFERENCE TO RAILROAD RATES TO THE NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION

Rates for New Orleans are now definite and fixed, and fortunately they are very low, being based upon a round trip rate of $20 from Chicago, $15 from St Louis, and a correspondingly low rate from Cincinnati, Louisville, Nashville, Memphis, several cities throughout the East, and doubtless from other points Physicians, and members living in the north and northwestern states, adjacent to the Illinois Central railroad, desiring tickets for themselves and families, can be furnished to coupons stations, or rates may be had at any point upon application to the ticket agent who will obtain same from his General Passenger Agent, which will be good for thirty days with stop over privileges

In this connection it may be well to state that living expenses in New Orleans vary considerably Good cleanly accommodations can be secured for $1 50 or $2 per day In some instances, as we have been informed, this will include breakfast and supper A special excursion has been arranged to leave Chicago on the above named road, Saturday evening, April 25, at nine o'clock, which will run direct (without change of cars), to New Orleans in thirty-six hours Several minor excursions have also been arranged for, at a nominal expense, to occur during your "stay" in the crescent city, among which will be a delightful "trip" along the Gulf coast to Mobile, passing Biloxi the oldest city on the coast, Pass Christian, an elegant resort, and other points of special interest Ample time will be given at Mobile to visit places of national historical interest A trip to the historic city of Vicksburg is contemplated, also a *sail* down the "Father of Waters" The World's Fair will undoubtedly repay one most profitably in a thorough visit to this great center of attraction, but in viewing all the many sights before you, we trust the various sessions of the meeting will be largely attended and the discussions spirited, and participated in by all who attend them

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The State Medical Society of Arkansas — The tenth annual session of the State Medical Society of Arkansas will be held at Little Rock on Wednesday, Thursday and Friday, April 22, 23 and 24, commencing at 10 A M

Each county or municipal society shall be entitled to one delegate for every five members and one for a fraction over five

The subjoined are the committees to report at the meeting

Committee on Medical Education —W N Yates, chairman, A B Moore, H B Williams, W P Hart, W A Amis, D S Drake, L Kirby, W A C Sayle, E H Alexander

Committee on Practice of Medicine —J J McAlmont, chairman, J A Dibrell, Sr, T D Nichols, D C Ewing, J F Simmons, H H Turner, J P Mitchell, I Fulsom, J D Jordan

Committee on Surgery —W B Lawrence, chairman, E R Dibrell, J F Blackburn, A P George, J M Keller, G W Hudson, J D Jordan, R G Prewitt, A J Vance

Committee on Gynæcology —R S Wallis, chairman, A J Pulliam, J T Jelks, R N Ross, J S Shibley, G C Head, C L Kirkscey, D S Williams, A B Loving

Committee on Medical Legislation —Z Orto, chairman P O Hooper, W B Welch, E R DuVal, A N Carrigan, F G McGavock, R G Jennings, A A Horner, W H Hawkins

Committee on Necrology —D S Mills, chairman, A N Hathcock, N T Thomason, T J Draper, D S Drake, J N Glover, S W Allen

Board of Visitors to the Medical Department of the Arkansas Industrial University —J M Keller, chairman, Z Orto, W W Hippolite, W J Watkins, W A C Sayle

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I hold it to be proven also, that a woman's strength is nourished and increased by a less frequent interference than we are apt to observe, and that much more is to be gained by general hygienic detail for a certain length of time, until, with incoming rigor and a measure of that confidence in her physician which is a pre-requisite of success, the woman shall submit to local examination without the risk of nervous excitation. It is a dangerous matter to alarm any woman about her uterus. It brings about a persistent, ever-present introspection, which breeds all kinds of imaginative disorders, and leads on to depression and melancholia. All the exaggerations of nervous manifestation are increased by unnecessary or immediate examinations. In the long list of anomalous nervous symptoms incident to women in run down conditions, with dislocated uteri, there is hardly one which can be traced directly to the local mischief alone. If the physician first address himself to the uterus, he will simply make matters worse; improve general conditions first before attempting any special treatment. Not infrequently, but most frequently, does it happen that the nervous derangement and physical drain have produced the uterine displacement. This very displacement, indeed, may become almost unperceived if the other viscera of the body be brought into harmonious relationship. Because a woman has an aching ovary, an enlarged tube and a pathological menstruation, shall we at once pronounce it a pyo-salpinx, and counsel oophorectomy or rather Tait's operation? It matters not however successful the result of such operation, there has been taken from the woman an essential, integral part of her distinctive individuality, and, in a certain sense, she becomes really unsexed. This will always be, and must necessarily so be, an ever-present grief. She will never quite reconcile herself to the change. Since the ovary and tube bear certain definite and unalterable relations to the whole cerebro-spinal axis, and are important factors in the forces liberated by their just and harmonious action, deprivation of any essential—upon which such integrity of action depends—must be felt along the entire tract. An impression has been made upon this extremely sensitive organization which will be felt and made manifest in various ways.

I believe that there are many conditions of oophoritis which would yield to patient treatment and constant observation, if the physician and patient would practice both. What matters it if the period extend over months and years, if in the end the woman shall find surcease from suffering, and shall carry with her all of the organs with which she was created? I have not regretted following out such a plan in six cases which I have had under observation for long periods of time. Turkish bathing, attention to secretions and excretions, with special reference to the skin, the direct application of the galvanic current to the ovary, if there be sufficient salpingitis to allow the passing of a very fine electrode (such a procedure I reported during the month of August in the *Philadelphia Medical News*), general faradization, massage, counter-irritation over the ovary, iodoform vaginal tampons, and well-regulated home rules of hygiene will accomplish very much. Not for a week, nor for month, but for a year, or two years or more, must this treatment be kept up. It is hard on the doctor, and it is hard on the patient. The results are not immediate; they creep on insensibly. It is a long road, but the end will crown the labor.

Looking at the vaginal tube as it exists normally in a condition of rest, the walls are all seen to fall together, so that by their constringing properties they give more or less support to the uterus. The anterior and posterior culs-de-sac, or the vesico-and recto-peritoneal folds, are so arranged that the finger pressed well up into either will permit the physician to manipulate the body of the uterus. So, too, may he arrive at the same step by using the rectum, and even the bladder. But he never *directly* moves the uterus; neither can he do so in any of these ways. He can indirectly tilt it by using the cervix as a lever, or by conveying the impression through the peritoneal folds, anteriorly or posteriorly. From the very anatomy of the parts no mechanical instrument can ever be devised which shall accomplish more than the finger can do, or which can accomplish as much as the finger with as little danger of bad results. The uterus is a highly sensitive organ, in intimate relationship with every other part of the body; and seldom does it bear manipulation with impunity.

When an inventive medical man threw upon the market a lot of most irrational devices, called "pessaries," which are correct in no single particular, he placed a dangerous weapon at ready hand, and one which has brought untold misery into the world. Foreign bodies are intolerant everywhere. The vagina is no exception to the rule. What happens in a case of retroversion, when the pessary is used? In the first place the proper lumen of the vaginal tube is put upon the stretch, so that whatever supporting powers it may have possessed are lost. The walls are chafed, and interfered with in such degree as often to overlap the arms of the instrument. The rectal cavity is narrowed, so that the lower bowel is emptied with difficulty, and impacted fæces are often present Rectal tenesmus may supervene The bladder is irritated, and we have vesical tenesmus The body of the uterus, or rather a part of it, presses upon the hard curve, and it is made to support the weight of the entire organ, which is prolapsed and bent backwards as well It pressess the instrument towards the rectum, and conversely, the distended rectum pushes the pessary against the fundus The tendency of the uterus is downwards and backwards, it is congested and irritable, go between the endeavor of a distended rectum to push the uterus upwards and forwards, and the constant tendency of the misplaced organ to fall downwards and backwards, the pessary is severely pressed upon, and inflamation results Moreover, the curve of the pessary which is extended to support the fundus in a normal condition, so that the cervix may assume a normal position, does not give this support, and does not accomplish the end conceived in its construction The entire weight of the uterus is assumed by a small semi-circular band of the organ only You may caution a woman over and over again about keeping her bladder and rectum empty, but there are times when she cannot, and there must always be more or less intolerant pressure

In a purely mechanical and anatomical sense, it may be said that a pessary in the rectum or bladder would do about as much good, and would be a conception quite as logical Of what possible service can the most ingenious pessary, even that of Gehrung, be in cases of acute anteflexion? I have seen so many unhappy sequelæ from pessary wearing, and have myself obtained so few satisfactory results from using them, that I speak feelingly in the matter The most ardent supporter of the pessary can only offer certain very limited possibilities for using it He can do no more, if he be a good anatomist, and even the advantages which he may claim, may prove to be disadvantageous, if the possible evil results be weighed in the balance Mechanical support can be given the uterus by cotton tampons much more safely, for one reason, and with greater claim to scientific appliances, for another They will adapt themselves to curves and positions, and they will not interfere with any of nature's laws In the forward displacements, slow and well-directed dilatation, kept up for months, will do vastly more than the stem, which even if it do not light up an inflammation, will accomplish nothing of permanency They are only valuable when in position The uterus once relieved of their presence returns at once to a former position Even in hands of the most scientific they frequently occasion mischief I do not believe that any gynæcologist of the day believes these supports to be scientific inventions, but they rather are the makeshifts of imperfect knowledge My conviction is that better results, without any risk, results that are better locally and constitutionally, can be obtained by conservative practice, by attention to every detail of life, even those the most insignificant, for the aggregation of the little things go to the making of the big ones, and also, by attention to psychical conditions and reactions The woman should be treated objectively and subjectively Ill directed local treatment very frequently aggravates every symptom, and stamps a history of future suffering upon the entire life of the patient, simple conditions depending upon a departure from normal standards, new simple remedies, based upon a thorough knowledge of the laws governing such conditions, and not directed solely by cursory reading of text books

Again, it seems to me that there are possibilities in electricity, not sufficiently known, which may make great changes in future treatment Tripier has already gone far in this direction, and what he has written of the treatment of displacements by electricity may be read with much interest

There is yet one more thought that suggests itself It is hardly possible for the sexual apparatus to suffer without there being a corresponding derangement in almost every other viscus The reflex symptoms are not to be overcome by local treatment only Build up, reestablish the functions that are working badly, and you will not only place the patient in a much better way for the special interference, but you will much more surely bring about a happy result Local treatment satisfies the local condition only, and it may fail in even accomplishing this much Instead of fostering a woman's energy, it weakens and vitiates it by exciting new and irritating processes that feed upon her nervous vitality Great elaboration of detail, exaggeration of treatment, and intricate preventive advice may be sources of mischief, and are not often demanded in any instance

The simple pad of Garrigues is a valuable suggestion, but few men would undertake the elaborate system of rules advised by Thomas in management of the lying-in woman How many cases of dislocated uteri are ever permanently cured? How many cases of lucorrhœa yield to excessive local treatment only? How many neurasthenic women respond immediately to the local interference addressed to a uterus, which may happen to be out of place? If there be one truth above all others of most importance, it is to go slow *Festina lente* ought to be the watchword of every gynæcologist

I have spoken strongly in the matter of pessaries, more strongly, perhaps, than facts will justify It may be urged that a properly adjusted instrument does not interfere with the rectal tube, since the rami embrace it without constricting it, that the bladder cannot be irritated, as the smaller end rests only against the bony structure of the pubis, that the fundus never presses unduly, since the pessary does not force the uterus into place, but only holds it *in situ* after it has been once restored to a normal position, and that it is only intended to act as a mild support until the ligaments shall have contracted by rest If all vaginæ were of the same length and calibre, if all uteri were equally tolerant of interference, and if all uteri, once restored, would remain so, these objections would be of serious moment But the facts are these, Uteri differ most signally in their appreciation of manipulation, some will tolerate almost any amount of handling, while the least interference will light up an inflammation in others Many vaginæ are so short that they must be lengthened before any contrivance will be of service

With retroversion there must *always* be some prolapsus and congestion The congestion is a result of the displacement and will only disappear with the exciting cause The congestion causes increase in weight, and this increase in weight causes a tendency to drag the whole structure downwards If a pessary be now applied, there must be more or less pressure upon the bow from the very nature of things The ligaments are relaxed and will not hold the uterus in place, handicapped, as it is, by an abnormal weight The pessary has been measured properly, with such expansion of the rami that the rectum may not be disturbed, what will result? The super-sensitive uterus is pressing hard against an unyielding body, which body itself, thus encroached upon, is crowded into the vaginal walls This condition, the general one, and not regarded as especially significant of danger by the majority of practitioners, may become alarmingly aggravated by distension of the rectum or bladder, by sudden physical or mental shocks, or by the changes engendered by menstruation These conditions, in whole or in part, may be beyond the control of the woman, and are liable to occur to anyone and at any time No amount of present mechanical ingenuity can meet the possibility of a future unfavorable contingency Neither can any man predict what accident of environment will fall to the lot of his patient Moreover, no physician can satisfy himself thoroughly of the sensitiveness of any uterus, save only after the lapse of weeks If it be urged that the pessary should not be applied until after the congestion has disappeared, the answer naturally occurs, that such a waiting would be continuous with the life of the patient, and would terminate only at her death The congestion depends upon the dislocation the dislocation depends upon a relaxation of the ligaments Upon what does the weakened condition of the ligaments depend?

Just here is where all that I have written so haltingly and with such a sense of my own shortcomings, culminates Go to the foundation, let the uterus alone for a time Build the woman up, mentally and physically Then reduce uterine congestion by medicated tampons restore it by the postural treatment Keep it in place, if necessary, by tampons The primary steps in the treatment being fulfilled, in the hands of a thoroughly scientific physician, a perfectly fitting pessary may be worn, but only after other indications have been met For myself I cannot look upon them as desirable inventions, and I never make use of them Anterior and posterior ulceration of the vaginal walls may result from the long use of a pessary Infectious muco-purulent products may be absorbed by the lymphatics or veins Dr Kelly (*Philadelphia Medical News*, October 18, 1884,) has recently reported a death caused by a pessary, others of similar nature are on record I maintain that while these sporadic cases may now be regarded as curiosities of medical literature, yet they are dangers that *may* occur in the practice of even the most intelligent physician No instrument can claim to be a scientific one which shall entail any possible danger in its use

Conservative gynæcology does not necessarily mean that surgical interference is interdicted, but it does mean that only such treatment shall be made use of as shall be the one which shall be the best calculated to foster the vital energy of the patient, and shall restore to the nearest possible normal, the abnormality

THE ETIOLOGY OF TUBERCULOSIS

BY H F FORMAD, M D

OF PHILADELPHIA, PA

Presented in Section on Practice of Medicine and Materia Medica of American Medical Association May 8, 1884

Dr Formad opened the discussion on this subject, but refrained from presenting it for publication, as a similar paper, by himself, and giving his views in full, had just been published in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, April 26, 1884

He said, in the remarks which he read before the section, that he was not at liberty to present any additional matters upon the subject, being about to publish, in conjunction with Professor William Pepper, Provost of the University of Pennsylvania, a monograph on tuberculosis, in which the whole of his research and experiments, upon which his views were based, will be related with full details

Dr Formad's paper elicited the following

DISCUSSION

DR AUSTIN FLINT, SR , thought that if tuberculosis was an infectious disease, produced by a parasite, its contagiousness would follow, as a matter of course The presence of a parasite had been demonstrated The great preponderance of evidence is in favor of the view that it is uniformly present in products recognized to be tuberculous The bacillus is not found in products which from other characters are considered to be not tuberculous The conclusion which he had reached was that there was some essential connection between the presence of this parasite and the tuberculous disease In regard to the contagiousness and inoculability of tuberculosis, he thought that all testimony was in favor of this Other causes may cooperate, and undoubtedly do cooperate in the product of tubercle, but the presence of the specific parasite is essential

DR WILLIAM H WELCH agreed with Dr Flint Dr Formad had spoken of tuberculosis produced by inoculation of other substances than the bacillus If bacilli be the sole cause, the condition can, of course, be produced in no other way Koch, in his experiments, had taken every precaution to prevent error He had, with better methods of investigation, found the bacillus in every case When the difficulties of the process required for the detection of the bacillus is considered, it is not at all wonderful that at times it should not be discovered The essential point of Dr Formad's objection is whether or not tuberculosis can be produced by other causes than the bacillus The weight of evidence is in favor of the view that tuberculosis can be produced by the inoculation of no other substance than the bacillus tuberculosis

DR GEORGE M STERNBERG, U S A , had not been able to reach any definite conclusion in this matter He had performed some experiments, but they had not been conclusive He thought that the suggestion of Dr Formad, that the bacillus might act as a local irritant, was worthy of consideration He suggested that possibly the reason why tuberculosis had appeared in animals which had been inoculated with other matters than the bacillus, might be that the animals had developed the condition from being kept in unsuitable quarters

Dr R S Fitz, Massachusetts, thought that the pith of Dr Formad's remarks lay in the statement that he had produced tuberculosis without the bacillus It may be that he considered that tubercles were not really such

Dr James Tyson, Philadelphia, had hoped that Dr Formad would have produced some carefully detailed experiments When Koch's theory was first advanced, he thought it would share the fate of previous theories of this kind Instead of that it had been constantly gaining strength The only way that the matter can be settled is by a repetition of the experiments to decide whether Koch or whether Formad is right One point in regard to the contagiousness of tuberculosis and to its infectiousness Dr Flint thought that one would follow from the other Tuberculosis may be infectious, and yet not be contagious Malarial fever is an infectious disease that is due to a specific cause, but it is not contagious—thet is, communicable by contact It may be proven that tuberculosis is infectious before it is shown that it is contagious

Dr Janeway related a number of cases which he thought went to show tuberculosis was contagious

Dr C Denison, of Denver, Col , said there were three considerations which had not been mentioned by any of the speakers, but which seemed to him to have an important bearing on the subject under discussion The points he would make were favorable to a definite etiological relation between the bacillus of tubercle and tubercular lesions, because they in part supply the conditions essential to such relations

First—The argument based upon the analogy between tuberculosis and croupous pneumonia as an infectious disease The speaker called attention to the intimate relation both of these diseases have to "malaria," so called, the sections of the United States which are most malarious being fruitful in both acute tuberculosis and croupous pneumonia The idea that croupous pneumonia is infectious, is much strengthened by studying the geographical distribution of that disease The speaker had noticed, during eleven years residence in Colorado, the remarkable infreqency of true croupous pneumonia there, as compared with his previous experience in Connecticut He believed that if mistakes could be corrected in the death statistics in regard to pneumonia in the 1870 census, and catarrhal, broncho- and pleuro pneumonia—which are the forms which prevail in Colorado—could be eliminated from the statistics, the result would be that croupous pneumonia would be consigned almost wholly to malarious districts, and in some proportion to malarious element, festered as it is by *warmth and soil moisture* In support of this point, the speaker referred to the percentage of deaths from pneumonia to all deaths as given in the U S census of 1870 Of course all other forms besides the croupous variety were included, yet the twelve highest per centages in order by States were as follows Arkansas, Texas, Alabama, Kansas Mississippi, Florida, Georgia, Missouri, South Carolina, Kentucky, Virginia, Tennessee, and these ranged twelve (12) per cent , while the twelve lowest percentages in order from least to greatest were Montana, Idaho, Washington, Wyoming, Oregon, Colorado, New Mexico, Minnesota, Wisconsin, California, Michigan and Vermont, with an average of 4½ per cent of deaths due to this disease

2 The argument, based upon climatic conditions, which favor germination, *i e*, the chief characteriteics of a given climate which is likely to produce tuberculosis as compared with those of a climate giving approximate immunity from the disease The consideration of the geographical distribution of phthisis, in our own country, leads to the conclusion that the humidity and temperature of the atmosphere are very closely associated with the greatest prevalence of consumption Assuming that the statement is admitted, without presenting many possible proofs, that *warmth* and *moisture* are most important conditions for germ development, both within and without the human body, in fact, that these attributes aid in furnishing a favorable soil for the lodgment and growth of the bacilli of tubercle , assuming these things as known, the additional fact that the opposite conditions, *cold* and *dryness*, predominate as immunity is secured, is mentioned as a most important announcement which has been lost sight of in the histological discussion of tubercle The speaker presented humidity charts of his own device, graphically illustrating by seasons the dry and moist halves of the United States The moisture of the atmosphere was shown in four shades of blue, and the dryness by four shades of red colors, each shade representing an equal division of the whole climate, and being made up of the combined cloudiness and the relation and absolute humidity of the air as shown by all the signal service records for the year [1] It was thus plainly seen that the greatest humidities were in localities admitted to be fruitful in tubercular disease, and the least humidities in localities known to give the greatest immunity from such diseases Elevation coming in, in harmony with this general conclusion to increase that immunity Thus warmth and moisture, the friends, are put in striking contrast to cold and dryness, the foes, to germination

3 The opponents of the bacillus, as the germ cause of phthisis, have assumed unwarranted liberties in their negative judgment, since they have taken no account whatever of the *eliminating power natural to every living thing* The speaker had never heard one of these opponents admit that that, which, under more favorable conditions, might have proved infectious, had been eliminated by a system in a vigorous state of health, a condition antagonistic to the de-

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[1] These charts are preliminary drafts of a seasonal climatic map which, with an annual climatic map of the United States, are being prepared by Messrs Rand, McNally & Co , of Chicago

velopment of the bacillus of tubercle. Yet there is reason to believe that this is a frequent occurrence in the lives of many of us, especially those physicians who are often brought in contact with active phthisis. How better can we account for the fact, mentioned by Dr. Sternberg in his remarks, that certain guinea pigs, when allowed plenty of liberty in a grassy field, kept fat after tubercular inoculation, and finally when killed the bacillus was found in all of them? Is it not reasonable to account for this result different from that usually obtained, where animals are confined in close quarters, by the counteracting influence of the power elimination due to healthful living?

There seems to be a law in nature, that the lower the forms of life, so much more ample are the possibilities, both of multiplication and destruction, of these forms. Pasteur is said to claim that under the most favorable conditions possible, one parent bacillus anthracis can multiply to three millions in twenty-four hours. Certainly a startling statement, yet, if true, of much importance as indicating the great destruction of germs in their infancy, or the unsuitableness of the soil they fall upon, in order to stem such prolific increase. If any such reasoning holds good with the bacillus tuberculosis, it is not hard to conceive that those conditions of health, which are the heritage of the normal man, are the great destroyers of the bacillus. Indeed, the further we investigate this subject the more there seems to have been ample chance for infection, wherever the bacillus of tubercle is found. There is a lack of conclusiveness or force to any argument against the supposed etiological relation of these bacilli to tubercle or phthisis, which takes no account of this possible destruction,—the eliminating or counteracting power of healthful life processes. On the other hand, the cleansing and health-restoring influence of fistulæ, issues and counter-irritations; of hydrocarbons, nervines, alteratives, antiseptics, etc., and of complete respirations in a cool, dry, rarified atmosphere, favoring an increased exhalation of moisture over that inhaled, and constant use of the contaminated lung; in fact, *all practices* that we know to be remedial to phthisis, point to a positive and progressive character of disease, the etiology of which has no better or more consistent explanation than that afforded by the bacillus of tubercle.

Dr. W. T. Belfield, Illinois, could not agree with the theory that tuberculosis was due to bacteria. He believed that it was not due to bacteria, but to internal causes, or to conditions in which the patient was placed.

Dr. E. O. Shakespeare, of Philadelphia, after an extended review of the matter, concluded that tuberculosis was often an infectious disease; that often it was due to a specific, pathogenic, parasitic agent, and that so far it has not been demonstrated that anything besides the tubercle bacillus can produce the disease.

Dr. G. E. Smyth, of Green Castle, Ind., remarked that the discussion of all scientific subjects should be strictly non-partisan in character. In order that the physician or scientist may be impartial in investigating or discussing a subject like the one under consideration at present, it is absolutely necessary that all preconceived opinions should be discarded. He who has formed or expressed an opinion is disqualified from serving upon a jury at law. The theorist in medicine, who has preconceived opinions, is not a safe investigator. The day of theories in our profession is past. Facts are what we are in search of now. One fact established by indisputable evidence is worth a thousand theories however plausible they may be made to appear.

Koch's discovery of the bacillus tuberculosis has, in my judgment, been subjected to very unfriendly and, I might say, unjust criticism; not so much by the author of the paper under discussion at present as by others.

There seems to be much confusion existing in the minds of the profession in regard to the exact meaning of the terms contagion, infection, etc., the terms being frequently used as synonyms. All contagious diseases are infectious, but all infectious diseases are not contagious. Infectious diseases should be divided into three or more classes or divisions, based upon the manner in which the poison is conveyed from one patient to another, its absorption into the system, together with its subsequent behavior.

The first class under this method of dividing these diseases should include the purely contagious diseases—or those during the course of which the poison is sufficiently matured to be conveyed directly to an uninfected party who is susceptible to its action—of which small-pox, measles, scarlet fever, typhus fever, are good examples.

The second class, which is of equal if not greater importance, is not strictly contagious, because the infecting material has to undergo a period of development or growth after it escapes from the body of the patient, before others can be infected by it. To this division belong such diseases as typhoid fever, epidemic dysentery, Asiatic cholera, etc.

There is still another division which is purely miasmatic in character and although strictly infectious, cannot be communicated in the same manner as the diseases mentioned in either of the other divisions. In this division will be found such diseases as malarial fevers, croupous pneumonia, acute articular rheumatism, cerebro-spinal meningitis, etc. Perhaps other divisions or classifications will be added to these, as our knowledge of the subject is extended, and one may be found for tuberculosis and other chronic infectious diseases.

Let us assume now that all the infectious diseases, both acute and chronic, are caused by the introduction into the system of low but living micro organisms. Whether they constitute the real contagion or are simply carriers of something still more subtile which has heretofore escaped our attention, is not germane to the argument.

It is necessary that this contagious material be brought into contact with a fruitful soil. This simply means that the person who receives it possesses what is known as a predisposition either inherited or acquired, and for which we may at some future time be able to give an anatomical explanation as we can now do with many surgical diseases

Clinical observations have established the fact beyond the possibility of a doubt that the predisposition, or what is the same thing, the susceptibility to the action of the poison of certain infections, is very great in some families and almost entirely absent in others

This fact has been demonstrated frequently in large tenement houses, especially in New York city, where whole families have been destroyed by such diseases as diphtheria, scarlet fever, etc , while other families, occupying the adjoining apartments upon the same floor and equally exposed, have escaped without a case

The predisposition to croupous pneumonia is strong in some families, and almost, if not entirely, absent in others Some families are exempt from this disease while in others it appears in some member in every generation The same is true in regard to articular rheumatism There are doubtless present many practitioners who have had these diseases appear in certain families through several generations, while other families under their care have escaped them entirely

It is not every person that can be infected with the poison of any given disease Many persons will not have small-pox or measles So it is with tuberculosis Many persons cannot be infected with the disease, at least in the ordinary way in which infectious diseases are communicated If consumption is infectious, it perhaps should be classified with the local infectious diseases, such as syphilis, leprosy, etc , the system at large becoming infected subsequently from the primary local lesion, thus *accounting for many recoveries* in patients where the predisposition is slight and the power of resistence being great, enabling them to throw off the disease

It is admitted by the author of the paper under discussion that the bacillus tuberculosis is nearly always present in or during the *tuberculous process*, that it is diagnostic of the process to a *very great* degree, and he also admits that they are sometimes the cause of the disease by being lodged in the lungs, and by their presence exciting the tubercular process These are dangerous admissions for the author to make It is not claimed by the most earnest and ardent supporters of the germ theory of disease, *that* the mere presence of the germ is sufficient to account for the phenomena of infectious fevers It is the propagation and growth of the germ, with the consequent oxidation and *destruction of the* tissues, which gives rise to the subsequent phenomena If the bacillus tuberculosis is ever the cause of consumption, may not subsequent investigations prove that it is *always* so? This is a question of such vast importance that time will not admit of its discussion

Clinical observations seem to go for *naught with* the author of this paper This virtually takes the case out of the hands of the greyheaded veterans of the profession, no matter how careful and painstaking they have been in *their* observations It turns the entire case over into the hands of the specialist on microscopy I have always attached great importance to the natural history and the clinical appearances of all diseases Valuable information is certainly gained in this way I was convinced early in my professional life that there was a probability that tuberculosis was an infectious disease by the manifestations of the disease in several instances, one or two of which I will relate

Two brothers, members of a tuberculous family, and whom I shall designate as A B and C D, aged respectively 26 and 29, painters and glaziers by occupation A B contracted consumption in 1865, and died after an illness of eighteen months He was nursed by the wife of C D, who (the wife) was a member of a family consisting of thirteen children, all of which are still living No case of tuberculosis has ever occurred in any branch of this family for the last three generations This includes uncles, aunts and cousins The wife of C D, who nursed and cared for A B, contracted the disease, and died in about ten months, while C D, the husband who is strongly predisposed to the disease, escaped and is still living

W B , aged 22 years, and whose occupation, previous to enlistment in the army, was that of a farmer, returned from the army at the close of the war of the rebellion, with well-marked symptoms of consumption, which terminated his life in a few months He was a member of a family consisting of father and mother and eleven children (seven girls and four boys) The paternal and maternal grandparents had been pioneers in the early settlement of the county, and both branches of the family were entirely free from tubercular affections I investigated the history of the family carefully myself, and am personally acquainted with it for three generations back They were farmers in good circumstances, well fed and clothed, and comfortably housed Two of the sisters of this patient were his constant attendants

They both contracted the disease and perished from its effects, and in turn were nursed by other members of the family who contracted the disease and also died This process was continued until seven of the children were slain by the disease, and finally the father, aged nearly seventy years, took the disease and died, the only members of the family who escaped being the mother, who was an invalid and confined with chronic rheumatism in a distant part of the house and unable to render any assistance in nursing, one son and one daughter who were married and living several miles distant, and one younger son who was too young to be of service as a nurse, escaped and are still living

Many other cases have fallen under my notice similar to these, and perhaps there is not a practitioner within the sound of my voice but who has had a similar experience These are stubborn facts, they are seen every day by the general practitioner, and, unlike the bacillus, they don't require the aid of the microscope If physicians would report these cases, so that they could be tabulated, an array of clinical facts could be produced which would be valuable if not convincing

The world owes a debt of gratitude to Koch for his discoveries in this field of observation So are we indebted to his critics It is by continual agitation investigation and discussion that we finally arrive at the truth

No great discovery or improvement has ever been accepted unquestioned by the medical profession It was twenty-five years after Harvey demonstrated the circulation of the blood before it was accepted by the profession at large, and it is recorded in history as a fact that no member of the profession who was then over 40 years old ever gave in his adherence to the doctrine The same is true in regard to Jenner's discovery of vaccination

In 1809, when Ephraim McDowell, of Kentucky, demonstrated the practicability of ovariotomy, he was assailed by every prominent surgeon then living, and the operation was compelled to fight for a full half century, and finally established itself as a legitimate operation, but over the dead body of every prominent surgeon who was practicing at the time it was first proposed

Dr H C Ernst, Massachusetts, agreed with Drs Welch and Fitz, and then went on to describe the advantages and disadvantages of the different staining processes which had been recommended, and then called attention to the fact that in performing these investigations nothing less than an immersion lens, with some sort or sub stsge illuminating apparatus, would give reliable results

Dr William Pepper, Philadelphia, had observed similar cases to those described by Dr Janeway, but his observations had led him to a directly opposite conclusion He did not believe in the contagiousness of tuberculosis In the experiments which Dr Formad had performed, great care was taken to place the animals under the best hygienic surroundings, some were sent to the country, and all were given plenty of fresh air He thought that there were many other ways of explaining the connection of the bacillus and tuberculosis than the assumption that the bacillus held a casual relation to tuberculosis

Dr Traill Green, of Easton, Pa , did not believe that tuberculosis was a contagious disease, and referred to the fact that working in grindstone factories would soon induce tuberculosis in perfectly healthy individuals

In closing the discussion, Dr Formad said that he was highly gratified, and felt thankful to the section that so much time had been allowed to a debate which had been so interesting and instructive to him He did not see fit to comment upon the remarks of the many prominent gentlemen who participated in the discussion yet he felt somewhat disappointed, for he had hoped that more stress would have been laid upon facts than on views, and that some accounts of active personal work would have been elicited He thought that Koch had not made out his case fully, and that it brought others into misconception to rely upon his statements in regard to the etiological relations of his bacillus, and that it would be well to await further developments in a question of such grave importance, instead of jumping with Koch to hasty conclusions To the merits of Koch's discovery in regard to the diagnostic value of his bacillus in tuberculosis, Dr Formad did full justice

A CASE OF CALCULUS OF THE URETHRA

BY L H DUNNING, M D,

OF SOUTH BEND IND

J S , a farmer, consulted me on August 4, 1884, for the removal of a stone from the urethra He stated that he was 62 years old, and that for a number of years he had suffered intensely at times in consequence of gravel, that he had at times passed small gravel, but had no suspicion of the presence of a stone in the bladder Some time in January, 1884, a stone, which he thought to be as large as a hickory nut, had entered the urethra from the bladder, and passed down and lodged in the penis, just behind the glans At this point it remained and gradually increased in size until he presented himself for treatment

The penis then measured seven and one-half inches at its point of greatest circumference, which was three and one half inches posterior to the meatus The whole penis was much enlarged and of a dark livid hue Several openings, readily admitting the passage of a small probe, were found leading from without inwards into the urethra posterior to the stone The external orifices of these false passages were slightly excavated, and presented an almost gangrenous appearance, and from them the urine was oozing constantly The patient stated that two or three weeks previous to this time he had noticed that but little urine escaped from the orifice of the urethra, and thinking that the stone had plugged the passage, he one day made a hole with a gimlet through the center of the stone parallel with the urethra, but he found that even then the urine could pass through the orifice only drop by drop He tried to remove the whole of the calculus, but failed

On August 7, assisted by Drs Hitchcock and Gist, of this city, the stone was quickly removed An incision one and one-half inches long was made in the urethra, from the orifice backward The stone was crushed and removed in fragments A pouch was found, in which the stone had rested, of sufficient size to hold fully one ounce of water The weight of the stone was afterward found to be 300 grains The walls of this pouch were dense and hard An unsuccessful attempt was made to pass a small bougie from the bottom of this pouch into the urethra There was doubtless a communication between the pouch and the urethra, but it was so small or so well concealed that it could not be found With a view of making a free passage for the urine, I cut down upon and into the urethra just in front of the scrotum, and passed a grooved director forward along the urethra until the pouch was reached , then along the groove of the director a sharp pointed probe was passed through the posterior wall of the pouch, the end of the director being made to follow it, after which the opening was enlarged with a probe-pointed bistoury Having no suitable silver tube with me, a portion of a soft rubber catheter was passed through the pouch into the urethra, beyond the posterior extremity of the incision, and made fast An effort was made to pass a small bougie into the bladder, but it was unsuccessful, as it was impossible to carry the bougie

in animal fluids or secretions depends, as a rule, on their reaction If the secretion be alkaline, more of the tissue carbonic acid will leave the body by that fluid than by one less alkaline, while if neutral, or particularly if acid, scarcely any combined carbonic acid will be found in it as compared with the total carbonic acid in the blood If the bile of a dog be alkaline 100 vols may contain 57 vols of carbonic acid, while if acid, there may be in 100 vols only 5 vols of the same gas Urine, again, which is acid, contains only 14 vols per cent of carbonic acid, while in alkaline saliva there may be present as much as 50 per cent

Accordingly from the proportion of carbonic acid in the bile, it would be unsafe to estimate the total amount of carbonic acid generated in the liver An exact knowledge of the relative quantities of the carbonic acid in the blood of the pestal and hepatic veins, would be very useful in such enquiries

THE PIGMENTS OF THE SUPRARENALS —Dr MacMunn makes a communication to the *Physiological Society* entitled (*Lancet*) "On Myohæmatin, an Intrinsic Muscle Pigment of Vertebrates and Invertebrates, on Histohæmatin, and on the Spectrum of the Suprarenal Bodies" Physiologists have accepted Kuhne's statement that the muscle owes its color to hæmoglobin, but Dr McMunn contends that though the greatest number of voluntary muscles do owe their color to it, yet it is accompanied in most cases and sometimes replaced by myohæmatin The cardiac muscle of every vertebrate animal examined by Dr McMunn yields myohæmatin, which gives a very beautifully defined spectrum, totally distinct from any product of decomposition of hæmoglobin, *e g*, methæmoglobin, acid, or alkaline hæmatin or hæmatoporphyrin In order to demonstrate the spectum of myohæmatin no reagent whatever is required The spectrum consists of three bands, two of which persist after the bands caused by hæmoglobin have disappeared The bands have been missed by other observers, simply because the presence of well-marked bands due to myohæmoglobin hides those caused by the presence of myohæmatin The first band of myohæmatin occurs just before D, the next two are narrow, and placed between D and E, and two other faint bands may be present near the violet Dr McMunn has found myohæmatin in the cardiac muscle and some voluntary muscles of many in animals, birds, reptiles, amphibians and fishes This coloring matter has also been detected in many invertebrate animals, indeed, it was first discovered in them The substance is said to have been separated by digesting muscle in a pepsin solution, but it was slightly changed in the process, it was also obtained from the frozen myocardium of the rabbit by pressing out the plasma Histohæmatin is a name given by the author to a class of pigments of wide distribution in the animal kingdom Myohæmatin belongs to this class of pigment The histohæmatins are believed to be respiratory pigments, for they can be oxidised and reduced in the solid organs, where they are found Their absorption bands occupy almost the same place as those of myohæmatin In the suprarenal capsules of many mammals the medullary substances gives the spectrum of hæmochromogen, while the cortex shows that of a histohæmatin Wherever hæmochromogen is found it is probably excretory, and Dr McMunn has only met with it in the liver and in bile, so that it must be regarded as excretory in the adrenals It may be that the function of the adrenals is in part to metamorphose effete hæmoglobin or hæmatin into hæmochromogen Disease or removal of the organs prevents the removal of the pigment, hence pigmentations of the skin and mucous membranes set in Vulpian has shown that taurocholic acid is present in the medulla of the adrenals, of which the structure is like that of the liver, the presence of large lymphatics, together with the consideration of the facts of structure and of the well-known results of diseases of these organs, tends to prove that an active metabolism takes place in them, and Dr McMunn believes that he is justified in concluding that these organs have a share in the downward metamorphosis of effete coloring matter

MENSTRUATION IN AN INFANT —Dr V Derveer (*Il Morgagni*, *Lancet*) relates the case of an infant girl, who, when barely four months old, commenced to menstruate regularly When two years and seven months old she weighed forty pounds She had the facial expression and physical conformation of a girl from ten to twelve years of age The mammæ were of the size of small oranges, the mons veneris well developed and covered with hair, the labia majora and other parts of the vulva fairly developed The child was very intelligent, but of an irritable temperament, which was especially marked at the approach of the catamenial periods These recurred as a rule every four weeks and lasted four or five days, but at one time were interrupted for three months The child was then exceedingly irritable, and had sleepless nights, but perfect health was restored as soon as the menstrual regularity was re-established

MATERIA MEDICA AND THERAPEUTICS.

THE ACTION OF PARALDEHYDE —Dr S A K Strahan, in *The Lancet*, writes very favorably of the action of this new hypnotic As a sleep-producer he ranks it with chloral, while in anything like moderate doses it approaches in safety that safest of all sedatives, bromide of potassium He has employed it over one hundred and fifty times in about twenty-five cases, and has found but two patients who did not respond to medium doses of the drug One of these was suffering from acute mania, and the other from severe facial neuralgia He has given it in mania, acute and chronic, melancholia, dementia, the various stages of general paralysis, and in simple cases of insomnia Paraldehyde acts more quickly than chloral When a dose is taken a feeling of warmth, a kind of grateful glow, is experienced, and the patient is often asleep within ten or fifteen minutes The sleep induced is a nearer approach to natural sleep than that obtained by the administration of any other drug, the breathing is somewhat slower and deeper than in the waking hours, while the pulse becomes slightly less rapid and possibly stronger The temperature (surface) is not changed, the flow of urine is increased, and the skin is not affected No headache or other unpleasant symptom is experienced on waking, and the appetite is not injured even by the daily exhibition of the drug for considerable periods in one case for over three weeks

The dose is from thirty to ninety minims, but more than sixty drops is seldom required to induce sleep, and this, or even a smaller dose, repeated within an hour is much more effective than a single large dose The paraldehyde is best given as its first administrators recommend, that is, with a bitter tincture in sweetened water It has a pungent tase, but a drachm, when combined with fifteen drops of tincture of orange and an ounce or more of water sweetened with syrup, makes a not unpleasant draught, never causing nausea or vomiting The drug is given off principally or wholly by the lungs, and may easily be detected in the breath for ten, twelve or more hours

There is one advantage which this drug possesses over chloral which at once gives it a place among our most useful hypnotics, and that is the absence of any depressing or paralyzing action on the heart This permits of its being given with perfect safety to general paralytics and others to whom chloral would only be given with the greatest caution and with constant anxiety as to the result of even small doses

METHYL IODIDE —Dr B W Richardson, in the *Asclepiad*, finds methyl iodide to be an anæsthetic and powerful sedative A grain can be taken diluted in alcohol with safety for a dose, and in a case of syphilitic ulceration produced the most rapid curative result It was used under his direction in four cases of cancer, in one of these, where extreme hyperæsthesia of the whole surface of the chest had followed an operation performed a year before, complete relief was obtained from the iodide when other means had failed In the second case, one of uterine cancer, there was relief to pain In the third instance, one of recurrent cancer, the good effects were less apparent, but in the fourth, an open ulcer in the breast, cicatrization occurred under the iodide, and the patient left the hospital (Middlesex) with the ulcer quite healed Some time afterwards, however, there was return of the deposit The alcoholic solution of methyl-iodide for internal use is made by adding 6 grains of the iodide to 60 minims of absolute alcohol The dose is 10 minims in a wineglassful of cold water It is agreeable to take

USES OF A COMMON PARAFFINE TAPER —A common white paraffine taper makes one of the best bougies for exploring the nasal cavity One of from one eighth to one-sixth of an inch in diameter, and about ten inches in length, is made slightly soft by warming it in the hand, the end to be introduced into the nasal cavity is rounded off, the taper is bent into an easy curve and is ready for use The perfect smoothness of the bougie thus formed, the ease with which it bends, and the just-sufficient strength given to it by the wick, are qualities which make this simple, inexpensive and always ready instrument very effective To apply iodine evenly to the whole of the nasal cavity, it is merely necessary to paint the end of the taper, for a couple of inches, with iodized colloid, or with tincture of iodine, and then introduce it, to secure that all the iodine is left on the mucous lining of the nasal cavity If the cotton within it be nicely teased out at one end of a short length, the cotton makes one of the most convenient of brushes for applying iodine or other solutions to the throat As soon as one brush has been used, it can be cut off with the scissors, burnt, and another made —*The Asclepiad*

ON KOLA —Dr Monnet describes in the *Bulletin Generale de Therapeutique* a drug (sterculia acuminata) which he terms kola, but which has several synonyms applied to it It is a native of Africa, and is found between the Sierra Leone and the Congo The fruit contains five to fifteen seeds of the shape of a chestnut and variable in size, weighing sometimes from five to eighteen grammes When opened, these seeds are seen to be divided into two halves of a white or rosy color This substance is formed of cellules resembling closely the starch grains of the potato The natives chew the seeds to relieve thirst, strengthen the gums and preserve the teeth (they contain a certain quantity of tannin) They are considered as stomachic, relieve hunger, act as sialogogues, etc The natives regard them as a sacred medicine To offer the white kolas to a friend is a high mark of esteem, to offer the red indicates antipathy Solemn vows are made over the kola nuts

Dr Monnet has studied the physiological and therapeutical action of the drug at considerable length, and gives the following conclusions

1 Kola, on account of the cafeine and the bromine which it contains, is a heart tonic, increasing its rapidity, exaggerating its dynamic force aud regulating its contractions

2 In the second phase of its action, like digitalis, it is a regulator of the pulse Under its influence the pulsations become more ample and less numerous

3 As a corollary to its action on the blood tension, diuresis increases, and on this account, kola is useful in heart disease accompanied by dropsy

4 It seems that kola, while acting energetically on the contractions of the heart and the contractility of the involuntary muscles, on the contrary paralyzes the voluntary muscles when used in toxic doses

5 It diminishes the formation of the organic substances, such as urea, which results from the breaking of azotised substances, probably by exercising a special influence on the nervous system

6 It is a powerful tonic, and is indicated in anæmias in dibilitating chronic affections, and in convalescence from severe diseases

7 It assists digestion, either by increasing the secretion of the gastric juice, or by acting upon the muscular crats of the stomach, which it exerts a tonic effect upon in certain forms of dyspepsia Under its influence rebellious anorexias disappear and the digestion is regulated

8 Finally it is an excellent remedy for diarrhœa, and has proved very serviceable in chronic diarrhœa, and in certain cases of sporadic cholera, without our being able to explain its acting satisfactorily and physiologically

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MEDICINE.

PEMPHIGUS OF THE CONJUNCTIVA —The *Practitioner* gives two instances of this rare disease One, reported by Steffan, of Frankfort (*Klin Monatsblatter*), a woman, aged 73, presented herself for treatment on account of an inflammation of the left eye There was a moderate amount of conjunctival inflammation, with a peculiar cicatricial process running on in the inferior conjunctival sac Some of the cilia of the lower lid were drawn inward, thereby irritating the cornea With continuance of the inflammation the inferior conjunctival sac became shallower, finally disappearing in the outer third The cause of this cicatricial process could not then be discovered There was no evidence of granular conjunctivitis The condition was evidently that described by Grafe as *essential shrinkage of the conjunctiva*, and by Stellwag as *syndesmitis degenerativa* The right eye then became inflamed, and the same cicatricial process began to develop in the inferior conjunctival sac Finally scarce a trace of the sac remained, the lower lid being closely united to the ball A month after the inception of the disease an eruption of typical pemphigus vesicles occurred, first on the left, then on the right eyelid On the latter, during one and a half years' observation, the vesicles would come and go There also occurred during this time an affection of the throat, which was diagnosed as pharyngeal pemphigus Steffan draws the conclusion from his case that this confessedly obscure condition of conjunctival shrinkage is really the result of a pemphigus eruption, and that the proper name for the condition is pemphigus conjunctiva

Schweigger (*Centralblatt fur prackt Augenheilkunde*) reports a case of the same kind The patient was a sober old man There was marked injection of the scleral conjunctiva of each eye, a partial shrinkage of the inferior palpebral conjunctiva, and disappearance of the inferior conjunctival sac while the upper lids were healthy A few months later a pemphigus vesicle developed itself on the right scleral conjunctiva For years previous similar vesicles had been observed on the mucous membrane of the mouth

ERUPTION FOLLOWING THE USE OF ANTIPYRIN — Dr Paul Ernst (*Centralblatt fur klinische Medicin, Practitioner*) reports two cases of an eruption caused by the internal administration of antipyrin The two patients were a boy and a woman, aged respectively 10 and 67 years, yet the eruption was so nearly alike in both cases that there could be little doubt that the same cause was at work The eruption consisted of little irregularly rounded pimples lying close together, and in some places confluent so as to form patches of greater or less extent, between which the skin was normal, thus giving a marbled appearance to the surface After about five days the eruption began to fade and to assume the character of a brownish pigmentation, and in the old woman there were some faint evidences of desquamation Traces of the eruption were still visible at the end of two weeks The eruption was thickest over the body, and on the extremities the extensor surfaces were more covered than the flexor surfaces In the boy there was some œdema of the face, but in neither case was there any eruption on the head or neck, although the palms of the hands and soles of the feet were not spared There was some itching in the case of the woman, but the boy did not complain of this The eruption ran its course and disappeared, although the administration of the antipyrin was not interrupted The writer explains this by supposing that the system acquired a tolerance for the drug On this account he advises a continuance of the remedy where its use is indicated, despite the eruption In a postscript Dr Ernst states that he has observed three other cases of an exactly similar nature

THE TREATMENT OF SYCOSIS —Dr H Von Hebra (*Wien mediz Blatter Practitioner*) recommends the modified Wilkinson's ointment as an excellent application in sycosis The formula is—

℞	Sulphur sublimat	
	Ol cadini aa	ʒ ii
	Saponis mollis	
	Adipis aa	℥ j
	Cretæ preparatæ	ʒ ijss
M	Ft unguent	

The hair on and around the affected part is cut short, and the scabs and crusts removed by the application of any simple ointment After twenty-four hours the affected part is scraped, shaved, and thoroughly brushed with the Wilkinson ointment It is then covered with flannel, and a bandage applied The dressing is changed daily, and the ointment washed off, and all the hairs which are surrounded by pustules are epilated, and the pus squeezed out This is continued so long as pustules form, but even in obstinate cases this ceases in about ten to fourteen days In slighter cases there are no pustules after the first few days The part is then shaved only when necessary for the proper application of the ointment The tender, scaling skin soon acquires, by the application of oxide of-zinc ointment, prepared with vaseline, its usual smoothness and appearance

TOBACCO SMOKE —Dr Zulinski has published, in a medical journal of Varsovia, the results of a long series of experiments undertaken by him on men and the lower animals, to verify the physiological effects of tobacco smoke He considers (*Bulletin Medical du Nord*) that the smoke is energetic poison even in small doses For men it is but slightly deleterious, when it is not inhaled in any great quantity, but it may readily become so when the smoker acquires the habit of *swallowing the smoke*, as it is commonly called When deprived of its nicotine the smoke is still poisonous, but less so in degree It contains a second toxic principle, *collidine*, an alkaloid, and, in addition, oxide of carbon and hydrocyanic acid The effects produced by an abuse of tobacco depend to a large degree upon the nature of the tobacco and the way it is used Cigars are more toxic than cigarettes, cigarettes than the pipe, and the use of the narghile, or hubble-bubble, as it is sometimes called, by passing the smoke through water, reduces its toxic influence to the minimum Generally speaking, the tobacco that is least colored is the mildest, but this is sometimes misleading, for a large varieties of tobaccos are bleached, to suit the taste of consumers, and bleached by the aid of chemical agents that are not always without danger Many tobaccos of a pale color give a burning sensation with their smoke, on account of the large proportion of woody fibers which they contain This is the case with the *Caporal,* as exported by the French, and also with the *Bird's eye* tobacco, so popular with the English These tobaccos frequently produce slight inflammations of the tongue, by their elevated temperature and the irritating nature of their smoke They should be specially avoided by smokers of advanced age, as being most liable to produce cancer of the tongue or lips The black tobaccos are also often adulterated, but are, as a class, the least dangerous

TRYPSIN AS A SOLVENT OF THE DIPHTHERITIC MEMBRANE —Dr B M Van Syckel, of New York, recommends a trial of trypsin as a topical application in diphtheria Trypsin is one of the ferments of the pancreatic juice It will dissolve its own weight of fibrine in from five to ten minutes at a temperature of 37° Celsius (98 5° F) It has been successfully employed as a solvent of the false membrane in diphtheria by Drs J Lewis Smith, of New York, and J T Keating, of Philadelphia, and at present several gentlemen are engaged in clinical experiments to determine its value for this purpose Dr Van Syckel has found that when the diphtheritic membrane, removed post-mortem, is immersed in a trypsin solution at a temperature of 37° Celsius, "it becomes transparent and slightly swollen, then breaking into fragments it is slowly dissolved, with the exception of a small residue consisting of cells and possibly bacteria This settles to the bottom of the glass, leaving the solution slightly turbid and mucilaginous In cases where the membrane is still adherent to the surrounding tissue, the solvent action of the trypsin is slower, but no apparent change takes place in the healthy tissue " The solution is to be applied by means of the spray, applications being made every fifteen minutes if possible, or as often as the strength of the patient will permit, only a small amount of the liquid being used at each spraying The importance of frequent applications should be impressed upon the parents or nurse, as upon this depends the success of the treatment A leading pharmaceutical firm of this city is now employed in preparing a solution for use in diphtheria, but the writer states that the following extemporaneous preparation has been found very serviceable in his hands 50 c c (℥j ʒvj) of a 1 to 1,000 solution of salicylic acid may be added to 5 grm (ʒj gr xvij) of "extractum pancreatis," and the mixture allowed to digest in a water-bath at a temperature of 37° Celsius (98 5° F) for four hours, then filtered and made slightly alkaline by the addition of bicarbonate of soda The solution should be made only as required, as it will not keep more than one or two weeks —*Medical Record,* Feb 21, 1885

SURGERY.

A FOREIGN BODY IN THE BLADDER —Dr Folet details (*Bulletin Medical du Nord*) the case of a man 40 years of age, a sailor, who, while suffering from dysuria, was induced by a friend to use urethral injections through a tube long enough to reach the bladder, it was of rubber, and, being connected with a large reservoir of warm water, the force of the jet detached it from its connection and it disappeared in the urethra The frightened subject pulled on his penis and manipulated it in such a manner as to cause its total passage into the bladder For the last four days he suffered from an incessant desire to urinate, painful urination and hematuria Dr Folet placed the patient on his back, introduced a lithotrite and attempted to seize the foreign body, but on account of the presence of the prostate, his instrument passed over the trigonum without touching it, and thus was prevented from reaching the *bas fond* of the bladder, where lay the foreign body He was enabled to satisfy himself that the tubing was in its superior portion against the posterior surface of the bladder, and placed his patient in such a position as that, resting on his shoulders and heels alone, the sacrum could be elevated by a large Greek dictionary, when, on introducing the lithotrite, a soft substance was seized between its blades which was movable and drawn out, proving to be the tube doubled up and covered with phosphatic incrustations The operation lasted about two minutes The tube was 29 centimetres long, and composed of two portions, of 5 and 7 millimetres diameter, respectively One piece was partly within the other, but fortunately, the liquid and heat had so softened the rubber as to cause them to adhere firmly The phosphatic carapace was quite thick and rigid This foreign body had remained in the bladder eight days and produced an intense cystitis, which rapidly disappeared on its extraction

PARTIAL AMPUTATION AT THE ANKLE-JOINT —Dr Sklefassowsky has described in a Russian paper which has been translated and given in the *Revue de Chirurgie,* and a brief of which appears in the *Lancet,* an osteoplastic operation first devised and practiced by Dr Wladimiroff, of Kazan The operation consists in the removal of the posterior part of the foot and the ankle joint, and the union of the anterior part of the foot to the leg, so that the foot is in a line with the leg, and the patient subsequently walks upon the heads of the metatarsal bones and the fully extended toes The method of procedure is as follows An incision is made straight across the sole, on a level with the middle of the scaphoid bone, on each side this incision is continued up to the malleolus, and then straight across the back of the ankle The incisions are all carried down to the bone, and the ankle-joint is entered from behind and disarticulated This done, the heel is seized, and the soft parts of the dorsum of the foot are carefully separated from the bones, care being taken not to expose or injure the dorsal artery of the foot The transverse tarsal joint is now to be opened and disarticulated, and the os calcis and astragalus removed The articular surfaces of the cuboid and scalphoid, and the lower ends of the tibia and fibula, are to be sawn off, and the foot is then to be applied to the end of the leg, and first the bones, then the soft parts, united with sutures

The advantages claimed for this operation are that, while permitting the removal of diseased parts, it preserves healthy structures, and is not such a mutilation as is a Syme's or Pirogoff's amputation or an amputation through the lower third of the leg The result is stated not to be a great deformity, the line of the limb is preserved, and the foot forms an excellent basis of support The cases for which it is suitable are intractable ulcers of the heel, disease of the tarsus, limited to the os calcis and astragalus, and new growths similarly limited Sklefassowsky performed the operation for a very chronic ulcer of the heel, which had resisted all treatment for nine years, and which invalided and crippled an otherwise robust man Pirogoff's amputation is usually rejected for cases of strumous disease of the ankle or posterior tarsus, on account of the liability to recurrence of the disease in the stump, and, at first sight, it might appear that Wladimiroff's operation lies open to the same objection But the cases are not quite parallel In Pirogoff's amputation, part of the os calcis is preserved, and this very bone may have been involved in the primary disease In the latter operation the os calcis and astragalus are completely and wholly removed, these are the bones which are the most frequent seats of strumous and tubercular disease, and it is a common occurrence to see chronic destructive changes in them, or involving the ankle-joint, which disables, but do not otherwise injure the anterior part of the foot Sklefassowsky's patient had shortening to the extent of one centimetre only

A NEW METHOD OF STRAPPING THE TESTICLE —Dr Wm Barton Hopkins, of Philadelphia, says, in an article on this subject in the *Philadelphia Medical Times*, of February 7 Strapping swelled testicle in the ordinary way, with adhesive plaster, is effective only so long as the yielding quality of the tissues of the organ is acted upon by the pressure with which the plaster is first applied, there being no elasticity in the muslin The dressing must be frequently renewed, therefore, in order to follow up the rapidly-subsiding swelling I have found that india-rubber prepared and applied in the following manner obviates this necessity, requiring renewal not more than once in four or five days, besides making much more persistent pressure than can be obtained by adhesive plaster The advantages it possesses over the other forms of elastic pressure which have been employed, as the rubber bandage and the compressing-bag, are the perfect uniformity of pressure which can be exerted upon the entire organ, and the readiness with which it may be adapted to any case

Two adhesive strips three-quarters of an inch in width are first made to encircle the scrotum at the upper portion of the testicle, in order to hold the latter well down in the bottom of the scrotal sac, as in the ordinary method, and to form an unyielding base of support for the elastic pressure to act upon I originally used rubber for this, but found that the succeeding strips of rubber forced the organ partially through the encircling band thus formed, caused the material to become plicated, and thereby gave rise to pain The testicle being thus fixed, four bands of rubber are applied These are made of "bandage-gum" cut into strips of the required length, an inch and a quarter wide, and retained with "rubber cement" A few drops of the cement are rapidly and thinly spread uyon a strip with a spatula, and a few drops more upon the adhesive plaster and skin of the scrotum These surfaces are allowed to dry, care being taken that the rubber meanwhile does not curl up on itself and stick fast One extremity of the strip is then placed upon the adhesive plaster posteriorly, carried forward beneath the testicle, and fixed in front Another is applied in like manner laterally, and two more obliquely, four being usully sufficient to cover in the organ

As with india rubber used elsewhere for a permanent dressing to induce pressure, great caution must be exercised not to constrict the parts too firmly about four ounces traction on each strip when the dressing is completed being sufficient to aggregate maximum pressure likely to be required

COCAINE IN URETHROTOMY —Mr W J Gleeson reports the following case which came under the care of Dr G M Garland, at the Carney Hospital

Patient, aged 58, contracted gonorrhœa twelve years ago which resulted in gleet, the latter persisting ever since During the last three or four years he has had scalding, increasing difficulty in micturition and some urethral hæmorrhage, though the latter had been very slight and not at all constant On examination, No 12 French acorn bougie passed with difficulty through the anterior portion of the penile urethra, and on withdrawal was followed by a little blood Seven distinct hitches of the instrument within three inches of the meatus could be readily counted

At 9 56 A M forty minims of a 4 per cent solution of chloride of cocaine were injected into the urethra and retained four minutes by pinching the meatus At 10 07, the operation by the Otis method was begun and lasted twenty minutes

The patient lay perfectly quiet, and only winced once or twice during the repeated cuttings He expressed himself as delighted with the effect of cocaine After the divisions of the strictures up to 33 French, a No 28 steel sound was passed into the bladder, the patient declaring that he scarcely felt it at all Seven hours later he passed his water, and remarked that the pain attending this act was greater than that of the operation itself

As showing the previous irritability of the urethra, it may be said that the single introduction of a sound by Dr Garland at his first examination of the case caused far greater immediate and subsequent suffering than did the operation itself —*Boston Medical and Surgical Journal, Feb 5, 1885*

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any date The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY MARCH 21, 1885

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION —FINANCIAL PROGRESS

The annual reports of the treasurer of the American Medical Association for the six years previous to the establishment of the JOURNAL show an average annual income of $5,008, the highest amount for any one year being $7,409 89 and the lowest $3,304 According to the same officer's report at the annual meeting in Washington, May, 1884, the amount was $13,017 25, which includes the membership dues for 1883 and the receipts on subscriptions and advertising during the first three quarters of the first JOURNAL year According to the Editors' report to the Board of Trustees, presented at the same meeting of the Association, there remained due and uncollected from advertisers and subscribers an aggregate of $5,100 which, if paid during the last quarter of the JOURNAL year, would make the total receipts for the first JOURNAL year $18,117 25 On the supposition that these assets would be paid, and estimating the current annual expenses of the Association, aside from the publication of the JOURNAL to be only $1,000, it was predicted that the total income for that year would meet all actual expenses and leave a small balance in the treasury On the 25th of the following September, three months after the close of the first year of the JOURNAL publication, the Editor made a full report of the receipts on account of the above named assets up to that date, which amounted to $2,804 34 From the 25th of September to the 1st of March, 1885, there had been collected from the same assets belonging to the first year the further sum of $550, making the total collected from this source since the report at the meeting in Washington $3,354 34 This makes the total actual receipts to March 1, 1885, belonging to the first year of publication of the JOURNAL $16,371 59 This still leaves uncollected assets amounting to about $1,500, chiefly due from subscribers who signed the original pledges of support and have received the JOURNAL regularly, and from whom payments are still being received sufficient to indicate that the ultimate loss will be small On the 25th of September the Editor, in addition to a full report of the receipts on account of the JOURNAL to that date, also reported the total expenditures on account of the first year of the publication of the JOURNAL, which were as follows For publication expenses proper, including paper, printing, mailing, postage, expressage, and clerk hire, a total for the year of $11,078 68, for the editorial work a total of $3,067 12, making the total amount drawn from the treasury on account of the publication of the JOURNAL for the first year, ending June 30, 1884, $14,145 80

According to the treasurer's report, the actual current expenses of the association for the fiscal year of 1883-4, unconnected with the publication of the JOURNAL, were $2,148 66, which makes the total expenditures for all purposes belonging to that year, $16,294 46 This is $77 13 less than the gross actual receipts for the same year as above stated, on March 1, 1885 The Editor accompanied his full report of receipts and expenditures made September 25, 1885, to the Board of Trustees, by a receipt for payment in full of all claims, both for the publishing and editing of the JOURNAL, for the first year ending June 30, 1884

In regard to the income of the association for the present fiscal year, which corresponds with the second year of the publication of the JOURNAL, we can give exact information only so far as relates to the receipts at the office of publication, which are derived from advertisements and subscribers who are not members of the Association Members either pay their dues at the annual meetings of the Association or remit them directly to the treasurer in the interim The total receipts at the office of publication from subscriptions and advertisements belonging to the second yond year of the JOURNAL, up to March 1, 1885, amount to $2,112 03 The additional receipts during the present month will increase the amount to $3,000

There will then remain for collection belonging to this year the third and fourth quarters of advertising, and at least three or four hundred subscriptions, which, together, should net from $3,500 to $4,000 more, making the total receipts at the office of publication for the second year not less than $6,000

In the first article on the progress of the JOURNAL, March 7th, it was stated that the whole number of members of the association receiving the JOURNAL was 3,033 As the names of all these have been furnished directly by the treasurer since the publication of the JOURNAL was commenced, it is fair to assume that they either have already or will pay their membership dues to the treasurer for the current year If such should be the case it would add over $15,000 to the income for the year, and make the total from all sources, in round numbers, $21,000, being an increase of about $5,000 over the receipts of the preceding year

The increase in advertising patronage and the increased number of copies issued each week, will probably make the total publication expenses for this JOURNAL year nearly $12,500

The amount expended for assistant editorial work, in the form of editorial articles, foreign and domestic correspondence, reporting important medical society proceedings, clinical lectures, etc , will be double that expended for the same work the previous year Consequently, the total amount required for the editorial department this year will not be less than $4,500

This would make the total amount drawn from the treasury, on account of the second year of publication of the JOURNAL, $17,000 If we allow $2,000 for the current annual expenses of the association not connected with the JOURNAL, there will be left a surplus of receipts over expenditures of about $2,000 If there proves to be any material failure in the realization of the results here indicated, it will be owing mainly to the fact that some portion of the 3,033 members who are receiving the JOURNAL fail to pay their annual dues to the treasurer

In our next issue we shall state some of the most important sources of embarrassment encountered, thus far, in the management of the JOURNAL, with such suggestions in regard to the future as we deem important

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AUSCULTATION OF THE ŒSOPHAGUS

This mode of physical examination is so little known, that a few facts concerning it may not be superfluous It consists in auscultation with the ear, or preferably with the stethoscope, at various points along the tract of the gullet, while the patient is in the act of swallowing some liquid The instrument is first placed over the pharynx, upon the side of the neck, at the level of the hyoid bone, after which it is moved from point to point down the back, immediately to the left of the spinal column, as far as the eighth dorsal vertebra Hamburger originated this method, and published his observations and conclusions in the *Œsterrich med Jahrb* , 1867, 1868, 1869, and in 1871, in a monograph entitled *Klinik der Œsophagus-Krankheiten* Other investigators followed in his track, and recorded their researches as follows

Morell Mackenzie, *Clinical Lecture on Diseases of the Œsophagus, with Special Reference to Œsophageal Auscultation* *Lancet*, May 30, 1874 —Clifford F Allbutt, *On Auscultation of the Œsophagus* *British Medical Journal*, October 2, 1875, page 420 —Elsberg *Auscultation of the Œsophagus* Philadelphia, 1875 —Zenker, Ziemssen's *Cyclopædia of the Practice of Medicine*, Vol VIII, pages 12–14 —Gaston Sainte Marie, *Des Différentes Modes d'Exploration de l'Œsophage*, Paris, 1875

With an originator's enthusiasm, Hamburger made some statements of an astounding character and interpretations of sounds, which, to employ Dr Mackenzie's words, " are refinements which it is difficult to arrive at "

In the main, however, his conclusions have been confirmed, and the value of the method demonstrated This field bids fair to reward the patient worker with results at present scarcely dreamed of It has been established beyond doubt that diseases affecting either the caliber or normal structure of the œsophagus modify the sounds produced by the act of deglutition In order to be able to recognize and interpret abnormal sounds within the gullet, one must have an accurate knowledge of normal sounds and expend much patient labor in investigation, with ample clinical material If the stethoscope be placed upon the neck close beside the hyoid bone, and the individual be directed to swallow some liquid, a loud gurgling sound will be perceived by the experimenter This sound is supposed to be due to the admixture of air in the pharynx with the material ingested Over the course of the œsophagus a somewhat different sound is heard which is indescribable, but gives the impression of a smooth body passing swiftly and easily downward and distending the tube in its passage Hamburger describes it as suggestive of an egg-shaped body about an inch in length, with the less pointed extremity below He furthermore asserts that the practiced ear is able to detect various modifications of this body in both size and shape, but, as Mackenzie so delicately insinuates, such nice distinctions are fanciful A powerful imagination may give form to the normal œsophageal sound, but the mind of the ordinary auscultator will receive no other *impression than that of a sound of certain duration and quality, and it is from modifications of these that he will have to draw conclusions as to the condition of the tube.* As already stated, the normal sound of deglutition cannot be described, and hence an accurate knowledge of it can only be acquired by practice upon a healthy individual. It is a peculiar short gurgle, somewhat resembling a cluck (German "*Glucksen*"), and varies somewhat according to the nature of the substance swallowed, whether it be a dry solid or a liquid, and whether the liquid be water or of considerable consistency, as gruel. Hamburger regarded the sound as produced by the compression of the morsel of food by the walls of the gullet and the consequent admixture of the air contained within the *ingesta* with the solid constituents; Sainte Marie, as due to the sudden separation in front of the descending substance, of the mucous membranes, of the œsophagus, which were previously in contact; while in *Ziemssen's Cyclopædia* it is ascribed to friction. It is not unlikely that all these factors combine in its causation. The rapidity of the descent of the morsel in a healthy tube is so great that, if the hyoid bone be grasped while at the same time auscultation be made over the upper part of the œsophagus, the characteristic sound will reach the ear with scarcely an appreciable interval after the movement of the bone. In the case of dry solids, however, the act of swallowing becomes perceptibly delayed. With such facts as these in mind, and with a knowledge of the normal sound, the clinician is able to recognize any modification of it, and by the aid of œsophageal sounding together with the history of symptoms, draw important deductions as to the diseased condition. We quote from *Ziemssen's Cyclopædia*:

"The variations from the normal, which may be observed in disease, and which at times are of importance in diagnosis, are the following: total absence or great weakness of the sound; sudden cessation of the same at a given spot; clucking, gurgling or rubbing sounds ('glouglou,' 'gargouillement,' 'froufrou' of the French), of shorter or longer duration; further, diminution and rapidity of the vanishing of the sound, and, finally, the sound passing upward or laterally instead of downward."

In order to locate the portion of the gullet affected, one must know the divisions which are made of the œsophagus. According to Mackenzie, they are as follows: The pharynx extends from the "inferior curved line of the occipital bone, five-eighths of an inch below the occipital protuberance," to the level of the fifth cervical vertebra, the upper third of the *œsophagus, from this point to the second dorsal vertebra, the middle third, from the second dorsal to the sixth, and the inferior third from the sixth to the ninth dorsal vertebra.*

One occasionally observes in our medical journals reports of researches in œsophageal auscultation by foreign investigators which show this field of physical diagnosis is considered fruitful. We trust, however, that it will not be relegated entirely to our transatlantic brethren.

THE ANTISEPTIC ACTION OF THE BILIARY PRINICIPLES

So long ago as 1843 Chiapelli published the results of some experiments which showed that the bile was endowed with the property of resisting the decomposition of alimentary materials in the intestines. He admitted that some only of the components of bile were instrumental in producing this effect; that others were altered by the decomposition of the albuminoid and starchy matters. It will be remembered also, that in 1846 Gorup Besanez affirmed that the bile, or at least the biliary salts, exert an antiseptic action on the albuminoid alimentary substances; and Saunders, Leuret, Lassaigne and Eberle have attributed to the bile the rôle of retarding the decomposition of alimentary substances in the intestines. This opinion doubtless owes its origin to the discovery, in bile submitted to analysis, of products which are believed to be of a balsamic nature.

Professor G. Bufalini, in an article on this subject in the *Archives Italiennes de Biologie*, August, 1884, reports some experiments made by him, with the assistance of Prof. Giannuzzi, in 1875 (*Dell' Azione del Lievito di Birra sulla Bile e sopra altri Liquidi animali*). The results of these experiments, which are probably but little known, were: 1. At a temperature of about 40° C., and even less, bile in contact with beer-yeast underwent putrid decomposition with the development of gas, constituted for the most part of carbonic anhydride and an inflammable gas. 2. The bile contained a large quantity of mucous, which was easily decomposed in the presence of beer-yeast. 3. Solutions of the biliary salts, made from crystallized bile, only in rare cases produced a small quantity of carbonic anhydride when brought in contact with beer-yeast. 4. Beer-yeast, during a time of twenty-four hours and at a temperature of 40° C., had no action on gastric juice and on the peptone dissolved in it. 5. It did act on the mucus, by giving rise to a certain quantity of gas. 6. Gastric juice with peptones may retard and even prevent the decomposition of bile mixed with beer-yeast 7 Bile, such as is poured into the duodenum, has not the power of preventing the decomposition of the alimentary substances contained in the intestines, as is believed by physiologists, on the contrary, it is one of the animal liquids which is decomposed with great facility 8 Beer-yeast has the same action on blood serum as on bile

These experiments, however, were by no means conclusive as to the anti-putrescent properties of bile, for it is well known that it undergoes important modifications in the intestines its acids are set free and resolved into their components It is extremely probable that these derivatives have a different action Bufalini therefore undertook a second series of experiments in 1876, under the advice of Albertoni In the previous year Maly and Emich had published some experiments which showed that 0,5 per cent of taurocholic acid stopped amygdalic fermentation, even after two hours, 1 per cent of glycocholic acid had no effect, 1 per cent, and even 0,75 per cent of taurocholic acid prevented the development of bacteria in milk, while glycocholic acid only had a very slight effect It seemed, then, that taurocolic acid was very much more antiseptic than glychocolic acid

The experiments performed by Bufalini were very extensive and varied, embracing the action of pure taurine, taurocholic, glychocolic and cholalic acids on the bile and the biliary salts They showed that while the bile in nature may easily putrify, several of its components are, on the contrary, capable of retarding, to different degrees, the processes of fermentation and putrefaction As regards the normal physiological processes, this fact is very important, since it is known that the bile undergoes metamorphoses in the intestines The biliary acids, taurocholic, glychocolic, and cholalic, have undoubted antiputrescent properties, in the order in which they are named Emich had already established the fact concerning taurocholic acid, but it is much more important as regards cholalic acid, which is the biliary acid found in the fæces It is established that it is found in the large intestine, and it is probable that it here exerts its action Taurine, which is found in the intestine, is also capable of retarding the processes of putrefaction

It was shown by Albertoni, in 1873, what was previously suspected by Spallanzani, that the gastric juice owes its antiputrescent properties to hydrochloric acid, and that all the acids have this property to a different degree Bufalini shows that hydrochloric acid is somewhat superior to cholalic acid in this respect He also found, as was affirmed by Chiapelli, in the memoir referred to, that the bile is capable of absorbing the intestinal gases, and thus preventing meteorism, which suggests that some preparation of biliary salts or acids may be of service in preventing the meteorism of enteric fever, though a solution of sodium hydrate absorbed more sulphuretted hydrogen than beef-bile of the same degree of alkalinity

PUBLIC HEALTH AND THE NEWSPAPERS

There is reason to hope that the time will come (and before the millenium) when laymen will take as much interest in, and have as much knowledge of sanitary matters as medical men As every one must see, this will depend to a great extent upon the interest shown in these matters by the newspapers, which, when intelligently edited and conducted, are the great teachers of the people, even though the great majority of people who read them do so with no idea of being taught

"Was it cholera?" is the subject of an editorial note in the *Chicago Morning News* of March 17, which says "It is not certain that the bark Adolph Olrig has brought the germs of cholera from Calcutta to New York The health officer finds no contagious sickness now on board, although four of the crew died of the cholera, or a disease closely resembling it, when the ship was but a few days out The Adolph Olrig is now at anchor in New York harbor, and within a few days her crew and cargo will be on shore The only safe view to take of this case, and of many others which will very soon follow, is that they *do* bear the germs of cholera Accepting this as the plausible theory, the health officers should use every possible means to kill the germs As for our own health department, is it out of order to suggest that within ninety days from now the pestilence will probably have a foothold in this country, in which case we may be sure that it will not overlook Chicago? Clean the city"

Such articles as the above will do more toward bringing sanitary matters before the public, to whom they are of most benefit, than a great many learned discussions in the medical journals The people do not read the medical journals, and they do read the newspapers

CORONORS' NEGLECT

Two cases have occurred during the past week in which coronors and the coronors' juries have been guilty of gross neglect of duty The first case was that in which a coronor was called to determine the cause of death of two persons who had come to their death in a sudden and unknown manner In both of these cases there was reason to suspect that the persons had died of poisoning by morphine, and that one had taken a much larger quantity than the other In the case of the first the intelligent jury found that the person had come to his death from causes unknown to the jury, no autopsy was made, and the person was buried In the second case the finding was that death was caused by morphine, but no autopsy was made

The second case to which we refer is that of the young woman who was recently found dead in the Lake at Pullman, Ill No one knows how or why she died, an inquest was held (for form, we suppose), but it was so loosely conducted that the coroner and his jury may as well have sat in South Africa We are pleased to see that the daily papers are commenting on the neglect in this case The *Chicago Morning News*, of March 17, says, editorially "What adds to the singularity of the case is that no thorough examination of the body was made by competent medical men Inasmuch as the sole office of a coronor's jury is to determine whether death is accidental, suicidal, by violence, or from natural causes, the neglect to use the only possible means of arriving at a plausible conjecture in the present case reflects rather severely on the coronor and his deputy A careful *post-mortem* should have been held"

SOCIETY PROCEEDINGS

CHICAGO GYNÆCOLOGICAL SOCIETY.

Stated Meeting, February 20, 1885

THE PRESIDENT, H P MERRIMAN, M D, IN THE CHAIR

DR CHRISTIAN FENGER, presented the following report of his anatomical investigation into Professor W H Byford's

TWO CASES OF MURAL PREGNANCY

Reported in the Chicago Med Jour and Exam, Jan 1885

The exact anatomical diagnosis, or minute classification of an extrauterine pregnancy is easy enough in the early stages of the disease, but becomes more and more difficult in the latter half and toward the termination of the pregnancy In the early months it is only by accident that a pathological specimen is found Here the exact diagnosis is easy enough In the third to sixth month, the hemorrhage from rupture causes some specimens to come forth—by death or operation—and here the diagnosis is comparatively easy In the latter half, from sixth to tenth month, the diagnosis, viz, exact location of fecundated ovum, becomes often extremely difficult, next to impossible, on account of secondary changes after partial destruction of fallopian tubes and ovaries, and still further difficult, if a fatal peritonitis has contributed to mask the normal anatomical features of the organs in question

The two specimens sent to me for examination belong to the class of late, consequently difficult, cases, and in one of them decomposition was advanced Nevertheless, I think that a close examination of the specimens permits of a comparatively exact classification of the two cases in question Before describing and demonstrating the specimens, permit me to recall to your memories the different forms of extrauterine pregnancy

Extrauterine Pregnancy—The ovum is arrested somewhere in its normal passage from Graafian follicle down to the *cavum uteri*, or drops out of the passage, without or after rupture of the latter, into adjoining cavities or spaces

1 *Ovarian Pregnancy*—The ovum remains in the ovary Epiovarian pregnancy,—the ovum develops upon the ovary, having left the Graafian follicle

2 *Abdominal (or peritoneal) Pregnancy*—The ovum drops down into the peritoneal cavity, and does not reach the Fallopian tube at all

3 *Tubal Pregnancy*

I Tubo abdominal, or Tubo ovarian Pregnancy

II Tubal pregnancy (proper)

III Tubo uterine, or interstitial, or mural pregnancy Extra-peritoneal pregnancy (in the broad ligament, after rupture of the fallopian tube)

4 *Pregnancy in one side of a uterus bicornis*

5 *Secondary abdominal or peritoneal pregnancy* Ovary, tube, or even uterus (normal or *bicornis*), is ruptured, the fœtus slips into the peritoneal cavity, but remains in connection with the primary sac

I shall first describe and demonstrate Dr Byford's case, No 2 The uterus is large, four and a-half inches long, three inches broad at the fundus, the cavity also considerably enlarged In left side of uterus and vagina, I find an incision opening, three and a-half inches long, united with silk sutures, leading from the uterus and vagina into the sac, or, as certain members of the society called it, the adventitious uterus The sac can only be seen in fragments Its wall is one to two lines thick, the outside partly covered with peritoneum, partly adherent to surrounding organs, viz, bladder, uterus, omentum The rectum I do not find Right ovary and fallopian tube are missing The left fallopian tube shows the following conditions The uterine portion of the tube is of normal size, passable only for a thin probe, 0005 mm in diameter, at the distance of one-half inch from the fundus it is wider, one-eighth of an inch in diameter, and so it continues for four inches, then it suddenly dilates to one inch in diameter, continues so for one inch, and thereafter opens into the fœtal sac, the wall of the latter going continuously over into the wall of the tube The left ovary cannot be found Large shreds of the sac of the ovum, viz, amnion, chorion, adhere to the sac here and there Inside of sac is of dark brown color, spotted, the color of decomposed blood This condition is most pronounced in part of the sac that covers the posterior wall of the bladder and the anterior and posterior wall of the uterus On the uterus the sac is thinner and more adherent (no subserous connective tissue), than on the bladder, where the wall of the sac is about 2 mm , firm and movable against the bladder

From the condition in which we find the left fallopian tube, I think it safe to conclude that the ovum has developed in its outer half, near the abdominal end of the tube The funnel-shaped dilation of the tube in this place, and the thickening of its wall, which uninterruptedly continues as the wall of the fœtal sac proves the connection between the two cavities, and this case of extrauterine pregnancy would thus be of the *tubo abdominal variety* I believe that the ovum has commenced its development in the tube, and then, with or without rupture of the latter, has formed its sac on the surface of the pelvic and surrounding abdominal organs In that respect it might be classified as a secondary abdominal or peritoneal pregnancy, originating in the abdominal end of the tube

Dr Byford's Case, No 1 —This case has a greater interest, partly because the specimen is in a good state of preservation, and partly because some of its features are seemingly pointing to another of the varieties of abdominal pregnancy In this case it will be remembered, laparotomy was performed, part of the cyst and the upper two-thirds of the uterus were removed The child I shall not undertake to describe here, as it is irrelevant to the matter in question We find the uterine appendices of the right side, viz , broad ligament, round ligament, fallopian tube and ovary normal

The uterus, amputated about the middle of the neck, is of normal size, viz , the cavity, one and one-fourth inches between the two uterine orifices of the fallopian tubes, further down, one inch broad, still further down, one-half inch broad, and in the neck, one quarter inch broad The average thickness of uterine wall, three-fourths to one-half inch To the left and behind the uterus, and in uninterrupted connection with the surface of the uterus, is the sac or adventitious uterus From anterior surface of the sac, one-quarter inch from the left corner of fundus is the left round ligament, it is enlarged, one quarter inch in diameter On upper surface of sac, behind and to the left of the *fundus uteri*, is a pocket covered with peritoneum, two and one-half inches broad, three to three and one-half inches deep The upper free border of the pocket, or broad ligament, forms a somewhat thickened ridge, which runs in an arch just to the left, backwards, then to the right, then divides into two branches, a lower one that runs around and to the right, an upper one that runs forwards to the left, pointing toward the left corner of the uterus The ridge contains the following structures Left fallopian tube the tube is seven inches long, the same as the right tube It runs to the left backwards, in an arch, and then bends to the right downward and backwards, here it leaves the broad ligament, and the canal enters the wall of the sac How it terminates, if on the inside of the posterior wall or not, cannot be made out for certain, because the sac is cut off here, but there are no fimbriæ, and it does not appear outside of the sac, and has undoubtedly opened into the fœtal cavity, the uterine portion of the tube is of normal size, permitting the passage of a very fine probe only, the median portion of the tube is normal, perhaps slightly dilated, three to five lines, six to ten mm wide The termination of the tube in the wall of the sac is an oval opening, one-quarter inch in diameter, the borders of which are perfectly smooth, no fimbriæ anywhere visible Of the left ovary, no trace can be found The sac is, on the outside, clad with the peritoneum and smooth, the wall of the sac is from one to four to eight mm thick, white and firm, the thickest part of the sac is, right behind the fundus of the uterus, one quarter to one-half inch thick, and there the tissue, viz , fibres of the uterine tissue of upper surface of fundus, is continuous with the wall of the sac, (however, on the posterior surface of neck and fundus, the tissue of uterus is *not* continuous with the sac, but the latter is separated from the uterus by a short layer of connective tissue, that permits of dissection and leaves the posterior surface of uterus and wall of sac with smooth areas), this is the place where the placenta was situated The inner surface of the sac has an uneven, ragged or velvety appearance, most ragged over the placental site, close to and behind the neck of the uterus Outside of this place there are numerous islands of ragged, uneven appearance, with more smooth parts between them Several large vessels, one quarter inch in diameter, partly free, partly adherent, are found on the inside of the sac

A microscopical examination of the wall of the sac shows the following

(*a*) In the placental site (1) An inner layer of free cotyledons or fimbriæ, (2) a layer of maternal tissue, with crosscut of the cotyledons, (3) a heavy layer of connective tissue bundles, interspersed with some organic muscle bundles, (4) peritoneum

(*b*) A portion of the wall near the peripheral opening of the fallopian tube into the sac, which I examined for ovarian tissue, presents exactly the same appearances as (*a*)

(*c*) A thick part of the sac, some distance from the placental site and tube, gives the following (1) An inner layer of areolated connective tissue without cotyledons, (2) a median heavy layer of connective tissue bundles and bundles of organic muscle fibres, (3) peritoneum

(*d*) A thin floor of sac presents the same layers as (*c*) Nowhere is any trace of ovarian tissue to be found in the walls of the sac

In considering the anatomical diagnosis of the case, I shall have to take into consideration mural, ovarian and tubo-abdominal pregnancy

Can it be a mural or interstitial pregnancy? The continuity of the sac, in the placental site, with the upper surface of the fundus, belongs to the signs of mural pregnancy

The uterine portion of the fallopian tube is of normal length and width Consequently the fecundated ovum could not have lodged and developed here However, a persisting " Gärtner's duct " might, perhaps, form a lateral branch of the tube, branching off and running in the wall of the uterus And Baudelocque, the nephew, pretends that a mural pregnancy can take place when the fecundated ovum lodges in this blind duct Kleinwachter, in his article, "Tubal Pregnancy," in Eulenberg's Encyclopedia, remarks that the statement of Baudelocque has yet to be proved But supposing a mural pregnancy had taken place here, and consequently the uterine portion of the tube could be found open outside of the sac, then we demand in this case certain characters that cannot very well be dispensed with, and these are the following

The abdominal end of the tube, together with the ovary, must be found on the outer wall of the sac somewhere, and opening into the peritoneal cavity Supposing that the ovary, for some reason, was not found and the peripheral end of the tube was obliterated and buried in the wall of the sac, we might yet have had a mural pregnancy In this case, however, the tube opens into the wall of the sac, if it has opened into the fœtal cavity, it cannot be seen on the specimen (however, it looks as if it had done so)

The next question, then, is, Is it a tubo-ovarian, tubo abdominal, or ovarian pregnancy? If an ovarian pregnancy, we require (1) that the tube does not participate in the formation of the sac (Kleinwachter), (2) ovarian tissue is found in the wall of the sac, (3) there is a connection between the sac and the uterus through the *ligamentum ovarii* The round ligament, in mural pregnancy, is expected to be pushed outwards away from the side of the uterus This might be different if the ovum could develop in the posterior wall of the uterus, but this possibility has never been proved Gartner's duct runs, not in the posterior wall, but from the parovarium, first in the broad ligament (in the same fold as the tube), then in the muscular substance of the lateral border of the uterus, and down on the side of the vagina, where it terminates blindly The sac can be dissected off from posterior wall of neck and *fundus uteri*, which speaks for the development on the posterior surface of, and not in, the posterior wall of the uterus Thus, although the positive proof against mural pregnancy, viz, the opening of the tube into the fœtal cavity, is wanting (the fault of the specimen), as all the signs of mural pregnancy, except the apparent continuity of sac and uterus, are absent, I shall declare against mural pregnancy

Of a tubo-ovarian pregnancy we would require (1) that the peritoneal end of the tube participates in the formation of the sac—that is, opens into the sac, (2) the ovary may be intact, but it may also have been used up in the formation of the sac, and have disappeared either entirely or only remnants found in the wall of the sac It is easy to see how difficult it might be to find microscopic remnants of ovarian tissue in the wall of a sac, one hundred times or more the size of a normal ovary As near as we, in my opinion, are able to come to an exact diagnosis in this case, I should pronounce it a tubo ovarian pregnancy The exact location of the spot where the fecundated ovum has commenced development, it is, of course, impossible to prove to satisfaction Still, there is one interesting feature in this case, which, in my opinion, throws some light on this point This is the pocket, the blind-pocket on the upper wall of the sac, behind the uterus As before stated, the upper ridge of the posterior wall of the pocket, viz, the *ligamentum latum*, or the Fallopian fold of the ligament, forms a circular figure commencing at the left border of the fundus and terminating at about the same point, from the junction between the middle and outer third a branch goes off downward and to the right The tube is contained in the first two-thirds of the ridge and in the branch

The final third of the ridge that does not contain the tube, but runs back toward the left corner of the uterus would, in my opinion, correspond with the *ligamentum ovarii* The formation of the pocket, clad with the peritoneum and having as upper border the above described ridge, can, in my opinion, be explained if the ovum has been arrested and commenced development in the *ligamentum infundibulo ovarianum* (Heale) between the fimbria that line the sulcus leading from the distal end of the ovary to the *ostium abdominale* of the tube If the ovum be developed here, it can (1), with the vessels of the chorion, reach the abdominal ostium of the tube, and thus permit the tube to open into the sac, (2) it may reach down on the lower or posterior surface of the ovary, and thus during its growth lift up the ovary at the same time as it destroys it, but in lifting it up preserve and enlarge the peritoneal fold or pocket that is normally existing between the posterior surface of the peritoneal fold, containing the tube and the anterior surface of the peritoneal fold, containing the ovary and *ligamentum ovarii* In case the fecundated ovum, from the ruptured Graafian follicle, had dropped down below the ovary, and had been arrested, or had taken hold on the peritoneal surface of Douglas's fossa or on posterior surface of ovary, if a development in such a way and place is possible, the pocket could be formed of course, but we could not expect to have the tube run into or open into the wall of the extra uterine sac If the pocket in question is formed in cases where the ovum has been arrested in the peripheral end of the tube, I do not know

Dr W W Jaggard presented for Dr E C Dudley an

INTRA-MURAL LEIO-MYOMA OF THE UTERUS

The fundus was more particularly involved, the cavity of the uterus but was slightly enlarged, and the *endometrium* was normal The tumor weighed about fifteen pounds Both tubes and ovaries were removed with the uterus The ovaries had undergone extensive cystic degeneration

The tumor was removed by abdominal section in the median line with supravaginal amputation of the vaginal portion of the uterus, both ovaries and tubes, on Friday, 20th February, in Mercy Hospital The pedicle was surrounded by ecraseur and rubber ligature before amputation, subsequently the pedicle was secured in Dawson's clamp, and treated after the extra-peritoneal method The peritoneum was carefully stitched around the lower angle of the incision and parietal-peritoneum was in this manner united to visceral peritoneum

(*To be continued*)

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting Thursday, March 5, 1885

THE PRESIDENT B F BAER M D , IN THE CHAIR

DR WM GOODELL read a paper entitled,

A YEAR'S WORK IN LAPAROTOMY

During the past year he had had thirty-two laparotomies Of these twenty-two were ovariotomies, eight öophorectomies, one hysterectomy and one exploratory incision

Of the twenty-two ovariotomies ten were performed in the hospital of the University of Pennsylvania, with three deaths seven at his private hospital with one death In eleven, both ovaries were removed Seventeen had adhesions which in seven were very formidable Four of the women were over 60 years of age, and of these one died In not a single instance did he refuse to operate, although three of his patients were very ill at the time of the operation

The causes of death were as follows An old lady, aged 63, from whom a tumor weighing sixty-five pounds was removed at the hospital of the university, died suddenly from acute uræmia, after doing well for three days One kidney was found riddled with abscesses, the other was contracted The second death also occurred at the same hospital, but from peritonitis caused probably by hospitalism The third and fourth fatal cases were in advanced stages of septicemia when operated on Each one had high temperature, frequent pulse and night sweats from suppurating cyst In addition one was bed-ridden and had bed-sores The other had greatly swollen legs, although the tumor was a small one In each the adhesions were universal and very formidable The former died from shock fifteen minutes after the operation The latter lived one week Her's was a dermoid cyst, which in his experience was liable to have extensive and firm attachments, making removal often difficult and dangerous Dermoid cysts also very vulnerable, taking on inflammation on the slightest provocation In this instance a physician had removed some of the fluid with a hypodermic needle He (Dr G) had had two cases of small cyst in Douglas' sac in which violent inflammation followed the use of the aspirator The lives of his patients were, for several days, in danger, but fortunately they recovered with obliteration of the sac This should render one cautious about touching a dermoid cyst, unless he is prepard to perform the radical operation The fifth death occurred in a case forlorn from the outset Five years ago Dr Goodell had removed a very large colloid cyst of the left ovary from this woman A year ago her health began to fail coincidently with the appearance of another abdominal tumor, and she was rapidly pulled down On opening the abdomen Dr Goodell found that the cyst had burst some time before, and that a colloid material had escaped in large quantities into the peritoneal cavity The degeneration was plainly malignant, as the womb, broad ligament, bladder and the parietal peritoneum were studded with papillomatous masses Dr Goodell did not see her again but her physician Dr Bauman, of Telford wrote that the wound healed perfectly No abnormal symptoms set in, yet the woman grew weaker and weaker, dying from exhaustion on the sixteenth day after the operation Dr Goodell stated that this was the only case in which he had twice performed ovariotomy in the same patient but that he had at present a lady under treatment from whom, four years ago, he had removed the left ovary for cystic degeneration and in whom the right ovary is now enlarging and will need extirpation before long The liability of the sound ovary becoming diseased amounted in his cases to 1 5 per cent , and this strengthened him in the conviction that in women approaching the climacteric both ovaries should as a rule with but few exceptions, be removed That this case made his third one of colloid degeneration in which the sac had burst some time before the operation In each the disease was evidently malignant One survived the operation and went home, but died a few weeks later from a reaccumulation of colloid in the abdominal cavity, and a sprouting out of a crop of papillomata from the cicatrix in the abdominal wall In the second one, both ovaries were removed and from great emaciation and weakness the woman became plump and strong She did well for two years when a tumor made its appearance in the left broad ligament A year later, she died after much suffering From this experience he would look upon colloid yet with suspicion and would give a guarded prognosis in respect to ultimate recovery

With regard to the causation of ovarian cysts he believed more and more that single life, sterility and unfruitfulness, whether natural or enforced, were important factors Thus out of his twenty-two cases, nine were unmarried, and one was a widow Again, of the married, one was sterile one had borne but one child, and three had had only two children

During the past year he had also performed eight oöphorectomies Three of these operations were demanded for excessive menorrhagia and dysmenorrhœa from multiple fibroids, and two of them died, the difficulties of the operation being great The other oöphorectomies were performed for pernicious menstruation ovaralgia and threatened miscarriage and were successful In no case did menstruation return, although in one there was a slight show of blood

Of other laparotomies he had performed two, one of them an exploratory incision in a woman greatly redneced by pain and obstruction of the bowels Cancer of the pelvic organs was discovered She died very suddenly from supposed embolism The other laparotomy was a successful hysterectomy The tumor weighed thirteen and a half pounds and consisted of the womb with many large fibroid growths The adhesions to the abdominal walls, bowels and omentum presented many difficulties and needed many ligatures The stump, which was fully four inches in diameter, was encircled by Köberle's wire clamp, and treated outside of the peritoneal cavity The patient recovered slowly and without a bad symptom

The PRESIDENT presented a

GANGRENOUS FIBROID TUMOR OF THE UTERUS,

and made the following report of the case Mrs J , a patient of Dr Ira D Canfield, of Renova, Pa , 52 years of age, married, has had one child, 18 years of age, she has not been pregnant since Her abdomen had been rather prominent for years, and about five years ago she discovered that it was becoming quite firm and hard over the lower protuberant portion About the same time her menses began to appear more frequently than usual and to continue longer, until during the last year she flooded continuously three weeks out of every four She thought she sometimes lost a quart of blood in twenty-four hours There was great tenderness over the abdomen, so that the weight of the clothing was intolerable, and she had a constant feeling of painful distension, a sensation of bursting sometimes These symptoms increased in severity, and in the latter part of January, 1885, labor-like pains supervened Paroxysms of uterine tenesmus occurred several times a day, resulting finally in a discharge of serous fluid and gas, which must have been considerable in quantity, for the next morning there was marked subsidence of the previously distended abdomen However, the large, dense, round and evidently uterine tumor still remained, tolerating now comparatively rough manipulation, the tenderness having almost entirely disappeared The quasi labor pains increased in frequency and strength, and shreddy, putrid masses were occasionally expelled from the vagina The patient began to show evidences of acute septicæmia Dr R Armstrong, of Lockhaven, was now called in consultation, when it was determined that nature was endeavoring to cast off a decomposing uterine fibroid, and an effort was made to assist Symptoms of blood poisoning became alarming

On February 15 I was hurriedly summoned, and with the patient anæsthetized we found the following condition Abdomen distended and tympanitic A globular and symmetrical mass outlined within the lower portion of the abdomen, extending two inches above the umbilicus, about the size and consistence of the pregnant uterus at the seventh month of gestation Hanging from the vaginal orifice was an elongated mass of toneless decomposing tissue, which resembled the appearance which might be presented by a great mass of amniotic membrane which had been allowed to remain in the parturient canal for several days after labor It had a purplish ashy color, and was as thick as my forearm The odor emitted was sickening Passing my hand beside this mass, for I could not easily separate it, I found the os uteri so dilated that the vaginal and cervical canals were almost of the same calibre, and the rim of the os could scarcely be defined Advancing my hand within the cavity of the uterus, it passed among an immense quantity of semi-friable, soft and shreddy tissue, and discovered several large tumors of firm consistence imbedded in, and apparently one with, the uterine wall Indeed, it was difficult to define the uterine wall, so irregular and thick was it at some points and so thin at others The tissues at the attenuated portions of the uterine wall proper appeared so weak that I feared the manipulations necessary to enucleate the tumor would make rupture of the uterus imminent But their immediate removal was imperative, and fortunately their attachments were softened by the process of degeneration which had caused the grave symptoms I therefore introduced Thomas's spoon saw, and with that and my fingers I separated and removed section after section until there was nothing left of the uterus but the merest shell The aggregated quantity removed, a portion of which I present this evening, almost half filled a wooden bucket The uterus did not contract well after the operation, and very free hæmorrhage occurred, but it was controlled, and the uterus made to contract by large and repeated injections of pure vinegar The after treatment was carefully and judiciously conducted by Dr Canfield, and consisted of injections into the uterine cavity of vinegar twice daily until all fetid discharges had ceased The improvement in the temperature and pulse of the patient was remarkable, and within a few days she expressed herself as feeling better than she had for years She is now sitting up, apparently restored to health

DR R P HARRIS inquired the cause of the gangrenous change in the structure Was it confined to the new tissue?

DR GOODELL thought that the process of auto enucleation was the cause of the degeneration of the tumor The latter is a low grade of formation and the contractions of the uterus and the constriction caused by the cervix-uteri around the already extended portion interfered with the circulation in the tumor, and caused its death In one case he removed a tumor in which this process had just commenced, the removal of the tumor was followed by a gush of near half a pint of broken down blood which was very offensive in odor A sharp attack of erysipelas followed

DR BAER could give no other reason than that advanced by Dr Goodell The tumor was of slow growth, no ergot was given, but labor-like pains supervened, and may have cut off the circulation The degeneration was apparently confined to the new growth

The PRESIDENT presented the specimen, and read the following report of a rapidly growing

PAPILLOMATOUS OVARIAN CYST

Mrs G , aged 41, widow for eight years, has had eight children, the youngest being nine years She always enjoyed robust health until September, 1884, three months before I first saw her At that time a slight metrorrhagia began without pain or other disturbance Previous to that time her catamenial periods have been regular In October she noticed that the lower portion of her abdomen was slightly enlarged a little to the left of the median line She thought nothing of it then, but thought that she was growing fat The hypogastrium, however, continued to distend, and she began to lose flesh Her physician, Dr A R Blair, of York, Pa , brought her to see me on January 3, 1885 Her abdomen was then as large as the sixth month of gestation, symetrically developed, perfectly smooth, dull on percussion over the distended portion but resonant in flanks and epigastrium, and there was marked fluctuation Dark bloody discharge from uterus not fetid It was thought she was pregnant and that the metrorrhagia was due to threatened miscarriage But she was losing flesh, and there were no rational or physical signs of pregnancy except abdominal enlargement The uterus was slightly prolapsed and retroverted, rather softer than natural as patulous, cervix granular Sound two and a half inches Uterus not easily moved because of a mass pressing upon it from above I diagnosticated a rapidly-growing ovarian cyst and advised immediate operation but she was not ready I saw her again on February 7 The tumor had increased to double the size it was at first examination It was still symmetrical and occupied the same relation to the uterus She was losing flesh and strength She now complained of pain all over anterior surface of abdomen, and her pulse and temperature were slightly elevated She at no time suffered from pain in the tumor

On February 18, she entered my private hospital Has increased greatly in size during the intervening ten days Circumference at umbilicus forty-six inches veins in abdominal wall distended Tumor still symmetrical and markably fluctuating Metrorrhagia has continued daily since its first appearance in September Suffers from dyspnœa Pain over surface as before and abdominal wall seems to be one with the tumor I suspected, from this circumstance, adhesion of tumor to peritoneum Urine normal

Operation — Feb 20, 11 A M Assisted by Drs D J M Miller and J C Gabell, in the presence of Drs A R Blair, J W Kerr, and F B Hazel Incision, three inches tumor almost universally adherent to anterior wall of abdomen and omentum and very vascular I passed my hand and separated adhesions,and then tapped the cyst the fluid had the color and consistence of healthy pus, and was more than an ordinary wooden pailful in quantity Solid portion of tumor larger than the fœtal head at term was delivered through the small incision The tumor proved to be of the left ovary, and had a very short and vascular pedicle which held it in close contact with the uterus Ligated and amputated omentum, transfixed and ligated the pedicle with fine Chinese silk,cut and dropped it The right ovary being perfectly healthy, was not removed The uterus was soft and congested Peritoneum purple from congestion, but there had been no ascitic fluid, and the peritoneal cavity was found almost free from liquid Probably ten minutes were spent looking for bleeding vessels and finishing the "toilette of the peritoneum" Abdominal wound then closed with eight silk sutures

The patient recovered from the anæsthetic without any evidence of shock, pulse 98, temperature normal and she continued to do well until the second day in the evening of which her temperature reached 100°, its highest point, pulse 108, and strong She complained of being tired and looked worn She had not passed flatus from the anus, but there were occasional eructations of foul gas There was no tympany and no pain, but at about 11 P M she vomited, or rather regurgitated about a pint of very fetid yellowish liquid of a decidedly fecal odor The large quantity (she had not taken a teaspoonful of anything since the operation) and the odor, together with the fact that she had not passed flatus from the anus, caused me to suspect intestinal obstruction Her temperature fell soon after this to 96° and her pulse rose to 130, and became very weak There was no pallor of countenance or distension of abdomen or Douglas's cul-de-sac, or I should have thought this depression, bordering on collapse, was due to hæmorrhage Neither were there any other symptoms of intestinal obstruction than the apparent fœcal vomiting and the non-escape of flatus from the rectum Under the influence of active stimulants, by the rectum and hypodermically, she slowly rallied, but the temperature did not reach the normal point until the fifth day after the operation, when flatus began to escape from the rectum Her recovery was rapid after this The sutures were removed on the eighth day Union complete and solid, she sat up on the thirteenth day There has not been any bloody discharge from the uterus since the operation

The tissues of the cyst wall are very friable and the internal surface is studded with an exuberant papillary growth, presenting an appearance not unlike cauliflower excrescence The very rapid growth of this tumor to the greath size which it attained in five months, the constant metrorrhagia and the character of the tumor, places this case quite out of the usual course of development of ovarian cysts and make it worthy of record These are characteristics of malignant disease Is this a malignant tumor? I think not, in the sense of that it will necessarily return, now that it has been removed before the cyst wall had been broken down and discharged its contents into the peritoneal cavity This is the course of papillomatous ovarian cysts But even when this has occurred and the peritoneum become involved the disease may not return after removal

Some years ago I assisted Dr Goodell in the removal of a papillary growth of the ovary in which the cyst had ruptured and discharged its contents into the peritoneal cavity The peritoneum was greathly involved being thickly studded at various points with hard papillary nodules The patient recovered and the disease has not returned Dr Emmet records a like experience He says "I have never regarded the condition as malignant in character or in any respect more than a benign growth, accidental to ovarian tumors and accompanied by an ascitic accumulation [ascites complicates a later stage of the disease than my case had reached] I have, however, sometimes observed in this supposed malignant disease that patients bore the shock of the operation badly and died from apparently trival causes" (*Prin and Prac Gync, 3d ed, p 683*) It is probable that ovarian cysts of very rapid development often have this papillary character One of the specimens which I presented to this society at its last meeting was of this description, though less marked, and it had attained a size of thirty pounds in nine months It is also probable that the constitution is more profoundly affected by these growths than by the ordinary slow growing ovarian cysts For these reasons operation should never be deferred in such tumors

Dr Harris inquired whether any microscopic examination of the tumor had been made He always suspected malignancy in rapid growths and in papillomatous tumors the decision can not be made from appearances as of two such having the same apparent characters, one may prove to be malignent and the other benign

Dr Goodell remarked that the question of malignancy in ovarian tumors was a most interesting one As regards papillomatous cysts, Doran had divided them into two classes one springing from the hilus of the ovary, and not necessarily malignant, while papillary growths in cysts of the broad ligament usually indicate malignancy Some years ago he removed a collapsed papillomatous ovarian cyst upon which the late Dr Hodge had refused to operate in consequence of supposed malignancy It was complicated by ascites, and the peritoneal cavity had become infected with secondary growths, yet the woman got well and has probably remained well On the other hand, benign looking growths were sometimes malignant, for instance, he removed a large tumor having many adhesions, twenty-four ligatures were left in the abdominal cavity It was wholly benign in appearance, and the patient got up and about, but soon she became oppressed by rapid breathing Effusion into the right pleura was discovered, together with malignant growths affecting that cavity and scattered throughout the abdominal cavity The tumor was evidently malignant, but it did not look so In another case of apparently benign cyst, in which the clamp was used, menstruation occurred from the cicatrix, and later papilloma of the stump and abdomen sprouted out from the cicatrix and the patient died He said that all his cases of colloid tumors, three in number, have become malignant afterward

In one case, five years after the first operation the second ovary became diseased, the sac burst and the whole contents of the peritoneal cavity became infected In another, two years after the removal of both ovaries the disease returned in the broad ligament, probably from the stump of the ovary In another case, the cicatrix burst open a few weeks after the operation and a large papillomatous growth spurted out, the lady dying soon after Tait considered that among the causes of malignancy are tapping and delay in operating, the age of the cyst tending to malignancy Dr Goodell doubts if the microscope can distinguish between benign and malignant papillomata Virchow states that although benign at the beginning, they may become malignant in the later stages

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Indian Doctors in Liverpool —An "Indian doctor" in Liverpool recently brought an action for libel against Mr Pennington, a surgeon, to recover damages for libel The suit was decided against the plaintiff

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DOMESTIC CORRESPONDENCE

POISONING BY TURPETH MINERAL.

Editor of the Journal of the American Medical Association

Dear Sir,—Having noted the facts that several cases of poisoning by turpeth mineral (mercuric subsulphate) have been reported in the journals during the past year, that all of the cases, if I remember rightly, have occurred in children, and that the reporters have declared themselves at a loss to explain the rationale of this effect of what is generally considered an insoluble salt, it has occurred to me that an explanation may be found in the effect produced upon turpeth mineral by hydrochloric acid—assuming, of course, that the acid furnished by the stomach is hydrochloric acid

In the cases which have been reported, the amount of the turpeth mineral given has been, as a rule, as much as grs iij, and more

Mercuric subsulphate, when subjected to the action of hydrochloric acid, is resolved into corrosive sublimate and mercuric sulphate, two atoms of water being set free This being true, how much hydrochloric acid will be required to bring about the reaction, and how much corrosive sublimate will be found by this reaction from, say, gr iij of turpeth mineral?

$$(a)\quad 4HCl+Hg(HgO)_2SO_4=2HgCl_2+{}_2H_2O+HgSO_4$$

$$(b)\quad \begin{array}{cccc} \text{grs} & \text{grs} & \text{grs} & \text{grs} \\ 872\ 7 & 3 & 145\ 6 & 5+ \end{array}$$

$$(c)\ \text{If} \left\{\begin{array}{c} HCl \\ 145\ 6 \end{array}\right\} + \left\{\begin{array}{c} Hg(HgO)_2SO_4 \\ 727\ 1 \end{array}\right\} = \left\{\begin{array}{c} {}_{,}HgCl_2 \\ 541 \end{array}\right.$$

$$\begin{array}{lcccc} \text{then} & 5 & + & 3 & = & 2\ 16+ \\ \text{for } 872\ 7 & 3\ 5 & 541 & 2\ 16+ & & \end{array}$$

Hence it will take a little over gr ss of hydrochloric acid to convert gr iij of mercuric subsulphate into 2 16 grains of corrosive sublimate, quite sufficient to poison a child It may be objected to this, that we are not certain that this reaction really takes place, as we are not positively sure that there is any free hydrochloric acid in the stomach of the child, and that it has not been shown that the cases were those of corrosive sublimate poisoning The most conclusive answer is that the cases resembled those of corrosive sublimate poisoning very closely Furthermore, it is seen that only a very small quantity of hydrochloric acid is necessary to cause this reaction, and that even if the acid furnished by the gastric glands is not hydrochloric acid, physiology teaches that it very closely resembles it In fact, Albertoni proved almost conclusively, in 1873, that this acid is hydrochloric

The above is merely offered as a possible explanation of the fact that so insoluble a body as turpeth mineral sometimes causes death, with symptoms closely resembling those of poisoning by corrosive sublimate Very respectfully,

Wm G Eggleston, M D

MULTIPLE AMPUTATIONS.

Journal of the American Medical Association

Your numerous readers will doubtless be pleased to receive the closing record of a case of more than ordinary interest In the last edition of "Gross'

Surgery" under the caption of "Synchronous Amputations," a notice occurs of the remarkable case of David Hamer, of Schuylkill Pa. The subject of this notice met with an accident in the year 1847. Immediately after the receipt of the injury, he was visited by several of the most prominent physicians in this section of the country, who at once decided upon the hopelessness of the case, and abandoned all interference.

The late Dr. J. G. Koehler, then a young man in the profession assumed the responsibility of operating upon the case. The injured man was then seventeen years of age. The amputations were performed *before reaction was established without* any anæsthesia (and *without* any antiseptic). The legs were removed near the knee-joint, and the left arm near the shoulder-joint. The recovery was complete in two weeks. The patient grew to be a strong, able-bodied man.

He was engaged in keeping a public house for many years, and enjoyed remarkable health. He died, I think, on the 3d of March and was buried March 7 at Schuylkill Haven the home of his birth. He lived nearly *thirty-eight years* after the operation.

D. W. Bland, M. D.

Pottsville, Pa., March 10, 1885.

BOOK REVIEWS

Des Affections Cerebrales Consecutives aux Lesions Non-traumatiques du Rocher et de l'Appareil Auditif. Par Albert Robin, Chef des Travaux Chimiques au Laboratoire de la Charite, Medecin des Hopitaux, Chevalier de Legion d'Honeur, Laureat de l'Institut etc. 8vo, pp. 160. Paris, 1883. J. B. Bailliere et Fils.

Cerebral Affections Following Non-traumatic Lesions of the Temporal Bone and the Auditory Apparatus. By Albert Robin. Paris, 1883.

Of the many justly distinguished writers of the French school of medicine, few have become more prominent within the past ten years than Albert Robin. During that time he has published no less than eighteen monographs many of them valuable contributions to urological literature, the three last, however being the result of laborious investigations in cerebral pathology to which special department his work has been confined almost entirely for about four years.

The more recent writers on cerebral affections, as connected with non-traumatic lesions of the temporal bone and auditory apparatus, have made a distinction between inflammatory and reflex, sympathetic or functional complications, including in the first group such affections as meningitis, thrombosis and phlebitis of the venous sinuses and dura mater, meningo-encephalitis and cerebral or encephalic abscess; in the second, aural vertigo, convulsion and epileptiform attacks in a word, psychical troubles. Robin remarks that these two orders of complications have been described separately, and as though there was no relation between them, that they have even clinically, been described as totally distinct, and it is to this task, of showing wherein they are related, that he now addresses himself in the work under consideration. The researches of other observers, among others those of the lamented Lasegue, have opened an entirely new field in the pathogenesis of cerebral disorders, which has been still further enlarged by the contributions of Fournier to the subject of cerebral affections following naso cranial osteitis.

Having sought a solid base of operations in anatomy and physiology, and having collected two hundred cases from older and more recent writers, Robin now proceeds to discuss his subject from the following points of view: (1) *anatomico pathological*, (2) *physiologico pathological*, (3) *clinical*, and (4) an *etiological* point of view. With regard to the *physiologico-pathological* point of view, he asserts, first, that no single theory can account for the mechanism by which lesions of the temporal bone and auditory apparatus cause cerebral affections, and, second, that sympathetic or functional lesions do not belong to this or that auditory affection, but require for their production a certain number of conditions which shall agree as well in affections of the ear as in those capable of affecting the brain. Respecting the *clinical* point of view he has still more to offer by way of explanation, viz. The cerebral lesions of auricular or petrous origin cannot be divided and described separately. At the most, one may choose, in the multiplicity of appearances under which they are manifested, symptomatic types of which some appear to respond more particularly to one lesion or one group of anatomical lesions. Clinically we cannot distinguish absolutely between cerebral phenomena of an inflammatory condition and those of functional origin. If the first correspond to the grave morbid states which hasten and terminate the disease, the others should be more often considered as the first indications of the effects of auditory or petrous lesions on the encephalon. The diagnostic and prognostic value of aural vertigo psychical troubles, etc., becomes considerable when these accidents supervene in the course of an auditory lesion of extensive character. They then assume the importance of premonitory or cautionary accidents. At this time they present, in their course, their modes of association in the circumstances which precede, accompany or follow them, an *ensemble* of peculiarities which sometimes enables us to distinguish them from troubles purely reflex and due to indifferent or slight aural affections. So far as they are essentially of a reflex order, just so far do they denote the first effects of material affection of the aural lesion on the encephalon. The epoch at which they appear may precede by a very long time the invasion of the grave complications which determine death.

In Chapter I, the author considers the relations, anatomical and physiological, existing between the temporal bone and auricular cavities and the brain. From a summary of the embryological relations of the auditory apparatus, which we cannot here discuss he concludes that that apparatus is an absolutely peripheric organ, connected with the encephalon by a nerve, and with no other than a nervous connection He also thinks it worthy of remark that the two superior faces of the petrous portion of the temporal bone have a *meningeal,* not a true periosteal, covering, while that of the external or tympanic face is *mucous,* the frequent seat of various inflammatory conditions, and also that the thin plate of bone separating these two abnormal periostea is very thin, and frequently absent

In his consideration of the not infrequent anomalous appearances found in the cavity of the tympanum, he remarks that these weak points give rise, not without foundation, to certain *dangerous zones* in the walls of the middle ear The osseous, so thin and weak, are covered by mucous membrane constructed on the type of that of the air-passages, and capable, as this last, of being the seat of several inflammatory conditions, that is to say, the chances of periostitis are much greater here than at almost any other point Nor are the circulatory conditions of the cavity of the tympanum less favorable for the propagation of lesions to the cerebral veins The veins of the middle ear empty partly into the middle meningeal and partly into the venous plexus, passing through the carotid canal, which is the prolongation of the cavernous sinus Troltsch says, moreover, that the veins of the tympanic cavity communicate with the superior petrosal sinus If to this be added the fact that the venous blood of the labyrinth is taken up by the vestibular veins, themselves tributaries of the superior petrosal sinus, we at once see that the petrous portion of the temporal is not only in close relation and contact with six of the principal sinuses of the dura mater, but it also throws into these sinuses a great part of its venous blood, and from a circulatory standpoint the communications of the internal and middle ear, and the petrous portion of the temporal with the encephalic venous circulation, are largely open, a capital condition for the extension of phlebitis from an inflamed ear to the meninges and brain It is important that the cerebellar origin of the auditory nerve be borne in mind, because, as Robin states, this fact will aid in the explanation of the singular relations existing between the phenomena following vestibular lesions and those succeeding cerebellar lesions

From a physiological standpoint, the auditory apparatus exercises a series of peculiar influences of reflex order on the brain Of these influences, the most interesting, says the author, are the actions of instinctive and rhythmic regulation of general muscular movements, under the influence of rhythmic and musical sounds We see that he is carefully establishing that anatomical and physiological basis of which he has already spoken But, he further remarks, it is especially in the pathological state that the influence of perverted acoustic impressions, on the encephalon generally and the cerebrum particularly, is felt with most intensity He even goes so far as to say that every irritation of the internal ear, more or less intense and continued, determines cerebral troubles of a particular character, this fact, recognized clinically, has given rise to such expressions as *vertigo ab aure læso,* the type of which is found in the pathological state known as Menière's disease These vertiginous phenomena may be classified under three principal heads 1 Troubles of equilibration, 2 Vertiginous sensations, 3 Certain peculiar abnormal movements, which are classed as phenomena of Flourens He adds here, that in man, who alone can give an account of his sensations, the troubles of these three orders are accompanied by peculiar auditory sensations which form the fourth term of the syndrome now under consideration As the author specially considers these in a subsequent chapter, we pass on to notice Chapter I, in which he discusses the lesions of the auditory apparatus and petrous bone, which may cause cerebral affections

First, as regards the auditory apparatus itself, he remarks that we may say, with Prof Duplay, that there is no affection of the auditory apparatus which cannot cause cerebral troubles From the common collection of cerumen to the most profound alterations of the ear, of the petrous bone or mastoid process, there is no diseased condition which may not induce some cerebral complication In the great majority of cases, he says, otitis med chron supp, ordinarily called chronic otorrhœa, is the dominant cause of inflammatory affections of the encephalon, and, according to Wieden, cerebral abscess occurs in 14 per cent of the cases of chronic otorrhœa Acute suppurative disease of the middle ear is also, though less frequently, a cause of cerebral troubles, caries of the bones, which is much more frequent in chronic aural affections, being a large factor in their causation When, however, they do occur in the acute course of the disease, the termination by cerebral disease seems, in many cases, to be very rapid He cites a case, from Urbantschitsch, of a man, æt 73, with no history of cerebral or aural trouble, who died from cerebral complications, 56 hours after the initiation of acute median disease, due to exposure to cold Knapp states, 1879, that he has had only one death from cerebral complications in 182 cases of acute median otitis, but the author thinks that, from a careful review of the literature of the subject, the frequence of cerebral troubles in this disease is much greater than specialists will acknowledge

The reviewer, after a very limited search through the literature of 1881–2, has found the following cases

1 Abscess of the brain in connection with disease of the ear Ryerson *Canada Lancet,* November, 1881 This case is remarkable as being an example of cerebral abscess following acute otitis media

2 Cerebellar abscess from otitis med chron *Philadelphia Medical Times,* August 27, 1881

3 Cerebellar abscess from otitis med chron *Australian Medical Journal,* April 15, 1881

4 Cerebral abscess from otitis med pur chron *Edinburgh Medical Journal,* June, 1881

5 Cerebellar abscess after otitis med chron *American Journal Otology,* October, 1882

6 Cerebellar abscess from otitis media acuta, supervening on otitis med pur chron *Archives of Otol,* Vol xi, No 1, 1882

7 Cerebral abscess following chron sup otitis *Archives of Otology,* Vol xi, No 1, 1882

8 Acute middle ear inflammation with death from

extension of disease to the brain *American Journal Otology* October, 1882

9 Acute inflammation of the middle ear—four deaths *American Journal Otology*, April, 1882

It will be seen from the above references that there were seven deaths resulting from acute diseases of the middle ear

There is still another variety of median otitis which frequently determines cerebral affections (not to speak of periosteal otitis of which there is according to Robin, but one single authentic case which has been followed by a cerebral accident, that recorded by Zaufal, *Archiv f Ohrenh* xvii p 157, 1881)

This is the affection described by Muller as cholesteatoma, sebaceous or molluscous tumors by Toynbee, and to which Urbantschitsch and Wendt have given the name *desquamative otitis* The cholesteatomata appear to be the more or less degenerated epithelial residue of a desquamative otitis, though authorities differ as to their nature Wendt admits their epithelial nature and inflammatory origin Bezold believes that they are epithelial, and caused by a prior inflammation, but ulteriorly constitute an independent affection Lucae thinks that they are tumors *suorum generis*, while Gruber regards them as neoplasms of a peculiar kind, springing from an ulcerated mucous membrane

In conclusion it may be said that while M Robin has not written a good text-book, nor a great book he has given us a most excellent monograph, and a valuable addition to otological and general medical literature which is marked by a terseness too seldom found in the writings of our French *confrères*

W G E.

MISCELLANEOUS

American Medical Association —All who desire to join in the excursion to New Orleans, which will leave Philadelphia about April 22, with sleeper and hotel cars, should at once send their names to this office stating how many tickets they will require

Wm B Atkinson, M D, Perm't Sec'y
1400 Pine street, Philadelphia

Death of Professor Ellerslie Wallace —The Eastern journals announce the death of Dr Ellerslie Wallace who, until two years ago was Professor of Obstetrics in the Jefferson Medical College He was born in Philadelphia, in 1819, and was of Scotch extraction claiming to be a direct descendant of Robert Bruce He graduated from the Jefferson Medical College in 1843, having studied medicine under his brother, who was demonstrator of anatomy in the college

Cholera in Chicago —One of the leading daily papers says, on this subject The State Board of Health has sent a circular letter to mayors of cities urging that immediate steps be taken to guard against cholera The board says that "whenever Asiatic cholera has prevailed as an epidemic in Europe it has eventually reached this country, causing great loss of life and severe injury to commerce and all kinds of productive industry" In view of this the board declares that "states, municipalities, communities and individuals should hasten to put themselves and their belongings in the best attainable condition to limit the spread of the disease and to prevent those diseases that attend a cholera epidemic" For more than a year the *Daily News* has been insisting on a thorough cleaning of the city, that the pestilence might not find here a congenial resting-place But what has been done? Practically nothing There is hardly a street in the city that is not a mass of filth from curbstone to curbstone, nor an alley that is not far worse In New York and other large cities a systematic war has been carried on against everything that would contribute to the spread of Asiatic cholera In that city the board of health has directed a house-to-house inspection, to see that neither the ignorance nor the perversity of the citizens shall endanger the health of New York Chicago in its sanitary as well as its moral condition, is in a deplorable predicament.

Professor Ogston whose services as was stated in our last issue were not accepted by the British War Office, has been permitted to go to the scene of war operations His reasons for going are, that as he has to teach students in Edinburgh many of whom will enter the Army Medical Service, he wishes to make himself practically acquainted with military surgery

Dr Popper the well-known worker in subject of hygiene, has recently died at his home in Prague

Dr Nathaniel Ford of Brooklyn died in that city on March 9 in the seventy-third year of his age He graduated from Bowdoin Medical College in 1836

Raw Meat and Trichinosis in Berlin —A very violent outbreak of trichinosis has recently occurred in the house of a dentist in Berlin Eight persons were attacked and one died The disease was caused by the use of raw ham

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, United States Army, from March 7, 1885, to March 13, 1885

Army Medical Board to meet in New York city April 6, 1885 detail for board, Lieutenant Colonel Jos B Brown, Surgeon, Major Anthony Heger Surgeon, Major Jno H Janeway, Surgeon

Surgeon Heger to be relieved from duty in Dept East, and Surgeon Janeway to perform duties on the board in addition to his present duties (S O 56, A G O, March 11, 1885)

Brown H E Major and Surgeon granted leave of absence for one month, with permission to apply for two months extension (S O 48, Dept East, March 6 1885)

Taylor Blair D, Captain and Assistant Surgeon leave of absence extended two months (S O 54, A G O March 9, 1885)

Porter, J G, Captain and Assistant Surgeon sick leave of absence further extended fourteen days on account of sickness (S O 51, A G O, March 5, 1885)

—THE—

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

VOL IV | CHICAGO, MARCH 28, 1885 | NO 13

ORIGINAL ARTICLES

NATURE VERSUS ART IN THE CURE OF DISEASE[1]

BY J B MURDOCH, M D,

SURGEON TO THE WESTERN PENNSYLVANIA HOSPITAL, PITTSBURGH, PA

The constitution of our society requires that its president, on retiring from office, shall deliver to the society a public address It is expected of the one who undertakes such a task to act the part of a leader and conduct his hearers into new regions of thought For such a task I feel myself entirely unfit Instead, therefore, of acting as your conductor, let me take the more humble position of brakeman upon the train of medical progress It has seemed to me that in our desire to get ahead we have been going too fast, and that there is danger of the train getting off the track unless the brakes be applied Let us stop for one moment in our search for something new and return to first principles In what I shall have to say I will refer to what I regard as mistakes which we, as a profession, have been and are still making I shall refer to three 1 *A want of confidence in nature*, 2 *An over confidence in drugs*, 3 *The use of placeboes*

First, I remark that our profession has *always* made a mistake and got off the track when it has shown a want of respect for the unaided powers of nature, and has gone counter to the natural desires and appetites This I propose to illustrate by a few preliminary remarks upon instinct and the natural appetites

"Instinct" is defined as "a certain power or disposition of mind, by which, independently of all instruction or experience, without deliberation and without having any end in view, animals are unerringly directed to do spontaneously whatever is necessary for the preservation of the individual or the continuation of the kind" Such in the human species, is the instinct of sucking exerted immediately after birth, and such in the inferior creation is the instinct by which insects invariably deposit their eggs in situations most favorable for hatching and affording nourishment to their future progeny These operations are necessary for the preservation of the individual and the continuation of the kind But neither the infant nor the insect knows that they are necessary, they both act without having any end in view, and act uniformly without instruction, and without experience The actions of the inferior animals are generally directed by instinct, and in the savage state man is little less the slave of instinct than the brute

Concerning human instincts, philosophers differ widely in opinion, some maintaining that man is endowed with a greater number of instincts than any species of brutes, whilst others deny that in human nature there is any power or principle which can properly be called instinctive

As an example of instinct, it is said that caterpillars, when shaken off a tree in every direction, instinctively turn around toward the trunk and climb up, though they have never before been on the ground This is a striking instance of instinct On the tree, and not upon the ground, the caterpillar finds its food If, therefore, it did not turn and climb up the trunk, it would inevitably perish But surely the caterpillar does not know that such an exertion is necessary for its preservation, it acts not from motive, but from blind impulse

The bee and the beaver are endowed with an instinct which has the appearance of foresight They build magazines and fill them with provisions, thus providing against a time of need The solitary wasp digs holes in the sand, into each of which she deposits an egg, though she certainly does not know that an animal is to be produced therefrom

Familiar examples of instinct are the construction of the nest of the bird, the cobweb of the spider, and the honeycomb of the bee, all of which are so well adapted for their use, and constructed with such mathematical accuracy Other familiar examples are the migration of birds and fishes toward more genial climes

It would not be difficult, did time permit, to show that many of the acts of the human species, which are most essential to the preservation of the individual and the continuation of the race, are alike the result of instinct A healthy, vigorous infant, within a few minutes of its birth, gives the plainest and most unequivocal evidence of a desire to suck, even before anything has been brought into actual contact with its mouth It stretches out its neck and turns its head from side to side, apparently in quest of something, and that the object of its pursuit is something which it may suck anyone may satisfy himself by a very convincing experiment When the infant is thus stretching out its neck and moving its head, if anything be made to touch any part of its face the little creature will instantly turn toward the object and endeavor, by quick, alternate movements of its head from side to side to seize it with its mouth, in the very same manner in which it always seizes the nipple, till taught by experience to distinguish objects by the sense of sight, when these alternate motions, being no longer useful, are no longer employed. I have dwelt thus long upon this portion of my subject for the purpose of showing what great results are accomplished by simply permitting animals to have their own way. By following instinct alone, the great mass of animal life is preserved upon the earth.

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[1] An address delivered before the Allegheny County Pa, Medical Society, March 17, 1885, by the retiring president

Closely allied to, if not identical with, instinct are the natural appetites by which all animals will select their natural food; that which is pleasing to their taste being usually beneficial, and that which is offensive being injurious.

Animals and savage man, when sick, will be led by their natural desires and appetites to place themselves in the best conditions and make use of the best means within their reach for their recovery. They will select the place most sheltered from the storm; if they have fever they drink the purest and coldest water; having no appetite they take no food, and when hungry they eat of the most agreeable substance to be obtained. By these natural instincts and appetites, before the existence of the medical art, the whole animal kingdom was kept alive in health and cured when sick.

This being the case, it would be natural to think that the first attempts of the fathers in medicine would have been in imitation of nature. One would naturally think that they would have studied the manner in which unassisted nature cured her diseases and endeavored to assist herself. Such does not, however, seem to have been their way. They seem to have been imbued with the idea that nature was totally depraved; that every appetite and desire, if granted, would lead to the destruction of the individual; that a sick man unrestrained was bent upon suicide. They seem to have thought that it was their mission to thwart all natural desires. I could show this in many ways—by the painful and injurious dressings to wounds, by the loathsome substances which the sick were compelled to swallow, which we now know to have been injurious, and which, had the patient followed his own desires, would have been avoided.

As science advances, as the natural processes are better understood, as our knowledge becomes more exact, we see the wisdom of these natural desires, and in the treatment of disease we now use many of the same means, and in the same way, which man naturally would have used in following his own desires and appetites. I propose to illustrate this thought briefly, in the manner in which water has been and is now used as a therapeutic agent. It is within the memory of the elder physicians present, when not one drop of cold water was allowed to a patient suffering with fever. No matter how dry his tongue or parched his throat, no matter how delicious it might be to his taste, he must bear his torture. The profession never learned that the use of water was not only harmless, but, on the contrary, beneficial, until the more unruly and stubborn of its patients rebelled under the restriction and drank all the water they wished, being thereby greatly refreshed and benefited. So, also, with regard to the external use of cold water in fevers; it is but a few years ago when anyone who would have proposed such a measure would have been thought a fool. To have sponged the body of a fever patient with cold water would have been thought madness; and to have put one in a cold bath, murder. The fact that a patient longed for the taste of cold water to quench his thirst, and that to have his skin sponged with the same agent was agreeable, does not seem to have operated at all in the minds of his medical attendants as a reason for permitting its use. Perhaps the fact that he desired it was the reason it was denied. But how is it now, since our knowledge has become more exact, and we have learned by the use of the thermometer the elevation of temperature which takes place in fever, and also the power which cold drinks, sponging, and baths of cold water, have in reducing the temperature? We now know that the very means which are agreeable are the best which can be employed.

I have dwelt too long upon the practice of our Fathers. I believe that we, their sons, are today making as great mistakes as they did in going counter to the natural desires and appetites of our patients. The fearful mortality among children during the summer months is greatly due, in my opinion, to the fact that the little ones are not placed in a condition to gratify their natural desires, and mainly from the fact that they are deprived the use of cold water. Children, during the extreme hot weather, perspire freely; this would be caused by the extreme heat; but they are often against their will kept sweltering in flannel garments, which increases their heat and perspiration, and they are consequently very thirsty. If the child cries for drink, the nipple of the nursing-bottle is thrust into its mouth. The child is thirsty, not hungry; but not getting the water which it does want, it takes milk, of which its stomach is already full. The consequence is, the milk, not being digested, ferments; and vomiting, diarrhœa, cholera morbus and death result.

So also in the treatment of dyspepsia this same idea can be illustrated. It is now admitted that the best results are obtained in the treatment of this disease by following the natural desires of the patient, as indicated by his appetite.

This fact is well shown by the case of the late Hon. Charles O'Connor, the distinguished barrister of New York city. He had been a sufferer from some gastric derangement for years, and was under the care of those justly distinguished physicians, Drs. Van Buren and Keyes. He at last became so feeble that a consultation was arranged for with Dr. Austin Flint. Dr. Flint was not able to keep the appointment, and happening to meet Dr. Keyes he so stated. Dr. Keyes then informed Dr. Flint that it would be useless to arrange for another consultation, for the patient was dying and would probably be dead before another day. This news was circulated through the city and was so generally believed that obituary notices of

Mr O'Connor were published the next day in the daily papers, together with an account of the *post mortem* examination, and the cause of death stated to be degeneration of the gastric tubules But, notwithstanding all this, Mr O'Connor did not die He commenced eating just such articles of food, and in just such quantities, as he desired, commencing with a little brown bread upon which some sweet preserves were spread He continued in this course, eating such articles of food as his appetite craved, and lived for many years afterward in tolerably good health

Lest some should doubt my opinion regarding the benefits to be derived from simply following the natural appetite in cases of this kind, let me quote what Dr Flint says in a recent lecture

"It is a sound maxim in medicine that the therapeutic indications derived from science and from nature, as a rule, should harmonize If they be in conflict, the scientific indications are open to suspicion I will add, as another maxim that the true principles of therapeutics are in accordance with the dictates of common sense If there be antagonism here, when are considered the liabilities to error in scientific deductions, it is reasonable to suspect the correctness of the latter These maxims are applicable to the dietetic treatment in diseases Nature's indications as regards diet relate to appetite and the sense of taste That appetite and taste were intended to govern the choice and quantity of aliment in health no one can doubt, especially if it be added that the indications derived therefrom are to be regulated, to a certain extent, by reason and experience But it is a popular error that these natural indications are necessarily morbid in cases of disease, and that, instead of being recognized as constituting a governing principle, they are to be opposed This popular error prevails to a certain extent in the medical profession How often, perhaps I should say how common, is it that patients with different diseases are denied food when nature indicates the need of it by the sense of hunger! How common, when food is allowed, for patients to be denied the articles of food which they desire and made to take articles which they dislike! I look upon this disregard of nature's indications in the same light as upon the exclusion of fresh air from the sick room, against which Sydenham was the first to rebel, and upon those restrictions in the use of water internally and externally which have not even now become obsolete The dietetic regulations, in cases of disease, need reform today fully as much as reform was heretofore needed in regard to air and water It is evidence that science is astray whenever it opposes, instead of cooperating with, the indications of nature"

Were anything more needed to prove the truth of the power of nature to cure disease, I could refer to the success of homœopathy I do not allude to the modern homœopothist who surreptitiously and dishonestly makes use of potential agents, but to the honest followers of Hahnemann who uses high dilutions and triturations It cannot be denied but that a fair share of their patients recover, although no sane man can believe that the infinitesimal dose has any effect upon disease

This interference with natural processes pervades every branch of medicine Very few women are permitted to have their children in the way which their own inclinations would dictate They are kept upon their backs or sides at the caprice of their accoucheur, some even going so far as to restrain them in a sort of harness If she be a primipara, the old women of both sexes deem it necessary to direct when she should hold her breath and when she should bear down Now, this is all wrong, the girl of fifteen with her first baby knows as well as does her grandmother how to send her baby into this wicked world, and she should be permitted to do it in her own way She should be permitted to stand, sit, kneel, or lie down upon her back or side, just as she pleases By giving her every freedom, she will have her baby in the easiest way for herself Perfection in the arts of painting and sculpture consists in being true to nature A great elocutionist has said that no gestures are more graceful than those first made by a child So in the art of medicine, we will do well by closely observing nature and the manner in which she works

The second mistake to which I wish to call attention is to what I conceive to be an overconfidence in the power of drugs This overconfidence usually exists to the greatest extent in those minds which underrate the powers of nature It is the general opinion of the laity, and this opinion is shared by a few of the profession, that for every disease there is a specific somewhere in nature, and that it is the whole duty of the physician to find this specific, to find some drug which will cure this disease, without any regard to the condition of the patient or the stage of the disease Now, we should remember that disease is a process, and that the laws which govern pathological processes are as regular and orderly as are other natural laws And just as in the growth of the grain we have first the blade, then the ear, then the full corn in the ear, so in disease we have its different stages of growth and decline, some diseases being necessarily fatal, while others tend naturally to recovery The duty of the physician is to be able to recognize the disease, to know its natural history, to be able to recognize the different stages, and meet the conditions as they arise This is so well put in an article on new remedies published in a recent number of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, by Dr J Chris Lange, a member of this society, that I cannot resist making the quotation

"The attempts to control disease by potential agents, irrespective of its natural course, constantly afflict the possessor of this desire with the disappointments and vexations of failure His not less earnest because mistaken course is thus beset with unpleasant experiences, which are substituted for the satisfaction and pleasure which should cheer the physician as he daily observes the expected and interesting course of diseases and their intrinsic tendency to recovery A physician who, in the hope of achieving abortive effects upon disease by the exhibition of potential agents, habitually interferes with the normal course of disease, will not grow and gather the reliable and valuable experience which he would accumulate were he to content himself with observing, and when necessary, directing the course of disease "

It is nature, and nature alone, which cures disease All that the physician can do is to place his patient in the best condition for the application of her laws We do not deny that medicines are often useful in removing obstructions which stand in the way of recovery, but they are by no means the only, nor are they the most important, means to be relied upon Air, water, food, exercise, temperature—in fact, the total environment of the patient—are far more important considerations than the particular drug to be administered But notwithstanding we know this, and also know that it is clinical experience alone which can establish the value of any drug, still it must be admitted, in the language of Dr Flint, in the lecture already quoted, that pharmacomania is a form of mental abberration affecting alike certain physicians and patients, the latter have a morbid craving for, and the former an abnormal propensity to prescribe, drugs

"The pharmacomaniacal practitioner never tires in the use of remedies He has a distinct drug for every symptom, and remedies are multiplied in proportion as new symptoms appear One may know that to this extreme a practitioner belongs by a glance at the array of phials, cups and glasses at the bedside of the patient The prescriptions, which accumulate daily, contain a multiplicity of ingredients, each, perhaps, designed for a particular object His patients after recovery have a large collection of souvenirs consisting of the daily surplus of prescribed remedies To the apothecary he is a 'joy for ever ' A catalogue of the medicaments presented by the apothecary as a memento shows that Moliere did not exaggerate in the enumeration with which he opens his play '*La malade imaginaire*' The pharmacomaniacal practitioner is never discouraged in the use of new remedies He reads medical treatises and journals with special reference to these, and he loses no time in giving his patients the benefit of all in succession As one new remedy after another becomes obsolete in consequence of having been found useless or injurious, he relinquishes it only to supply its place by one still more recent, always accepting the latest with as much avidity as he had accepted the remedies which he has discarded "

The manner in which the ignorant public run after and swallow patent medicines, which are advertised in the public prints, is not more ridiculous than is the credulity exhibited by members of our profession in the statements regarding drugs and medicines We are made the dupes of the pharmacist and manufacturing chemist Some plant or root is found in New Mexico or upon the Rocky Mountains, having a peculiar taste or smell, and forthwith the manufacturing chemist (all for the good of the profession) makes an extract from it and sends it forth to the world with recommendations from doctors of high and low degree Agents are employed and forthwith every doctor's office in the land is abundantly supplied with samples of this most wonderful extract, together with recommendations from the aforesaid endorsers, men entirely unknown to the profession That these remedies are extensively used no one can doubt who visits our drug stores To my mind this is humiliating We have in our possession remedies which have stood the test of time, and long clinical experience, and to withhold these, if our patients need anything, and prescribe remedies whose claim of value rests upon no solid basis, is to be unjust to our patients Practitioners who are constantly testing new remedies, in the hope of finding specifics, can have but little knowledge of morbid processes, and their patients are as wise as they when, after reading the advertisements in our public newspapers, they resort to the use of patent medicines Indeed, the prescribing of the remedies which are put up in such attractive form by the manufacturing chemist is alike detrimental to the profession and to the public The manner in which they are put up, the character of the recommendations which accompany them, the explicit directions given as to the manner in which the remedy is to be used, bear evidence that, although they are addressed to the profession, the design is that they shall be used by the people without any advice from the physician But whether this be the intention or not, the fact is that they are so used by the public, and the physician who habitually prescribes these remedies is an unpaid agent, and a dupe, of the manufacturing chemist His patients soon acquire the habit of going to the apothecary for their medicine, without going through the formality of calling upon the doctor In the morbid desire which so many ignorant people have of everlastingly "taking something," potential agents are taken where they are not indicated, and to the injury of those taking them Had the patient not been initiated and instructed in regard to the use of these new and elegant preparations, he would have sought advice, to the mutual benefit of both physician and himself

The arrival of every mail brings to me, as I have no doubt it does to each one of you, a bundle of circulars laudatory of new compounds At this moment, as I sit at my table, I see pamphlets containing the names Hydroleine, Celerina, Tonga, Tongaline, Oleo chyle, Mentholine, Bronchines, Gastrines, Gonorrhœaines, and a host of other compounds with equally euphonious names Among the other rubbish that encumbers my table and overruns the waste basket, are half a dozen journals devoted to the science of pharmacology and the introduction of new therapeutic agents These journals are chiefly devoted to the introduction of new remedies The recommendations of the preparations are very similar in character and style to the advertisements which accompany patent medicines

It is plain to see, from their strictly scientific (?) titles, that they are meant only for the medical profession Is it not time that a halt was called upon this intolerable nuisance ? It should be discouraged in every possible manner The whole business, including agents, samples and pamphlets, should be refused admission to our doors Let us no longer be made the dupes of these manufacturers Let us return to the use of the extemporaneous prescription

I do not deny but that we are indebted to the manufacturing chemist for the elegant form in which they have presented some of our old remedies, but I do assert, without the fear of successful contradiction, that they have never, by the methods which they have adopted, given to us a remedy which has stood the crucial test of clinical experience. The manufacturing chemist is but an apothecary upon a larger scale, and it is time enough for the apothecary to compound a prescription after it has been written by the physician. The physician should be the pioneer in every case. Thanks to our colleges of pharmacy, we have now at most of our apothecaries men able to compound with elegance any prescription which we may need. Let us encourage these men, and give our prescriptions to only such druggists as will refuse to have upon their shelves *the ready made compounds* of either the patent-medicine vender or of the manufacturing chemist. By adopting some such course we could benefit ourselves, advance the science of pharmacology, and at the same time be of service to the public. Let the manufacturing chemist provide the chemicals and active principles. Let the physician do the prescribing, and let our own apothecaries do the compounding. By thus dividing the labor, and each one attending strictly to his own business, the best results will be obtained.

The physician who prescribes for a patient should have a definite aim. The remedies which influence morbid processes are not numerous, and it is better to select one of these remedies than to be running after untried agents. The physician should know well what he wishes to accomplish, and his prescription should be loaded, aimed and fired more like the rifle than the shotgun.

It is just this overconfidence in the power of drugs, and want of confidence in nature, which enables the charlatan to impose upon the public. "God cures the disease and the doctor takes the fee," is a phrase which is more often true than many think. It is no mystery to us that patients should recover while under the care of the hair-doctor, the laying-on of-the-hands doctor, the faith-cure doctor, the infinitesimal dose doctor, or no doctor at all. We know and recognize the ability of the "*Vis medicatrix naturæ*" to cure, and often in spite of very bad treatment. But to the public these recoveries seem marvelous, and only because of its overconfidence in remedies. Once teach the people the truth concerning the power of nature, and the occupation of the quack will be gone.

I contend that this overconfidence in drugs has been kept alive by *the use of the placebo*, which is my third point, which we will now consider. In a book published a few years ago, entitled "The Physician Himself, and What he should Add to His Scientific Acquirements," the manner of using the placebo is given in detail. This book has had a wide circulation, and has been highly recommended. Its author is a professor in one of our most prominent medical colleges. I would not allude to this book at this time, were it not that I believe its teachings to be pernicious upon the mind of a young man just entering our profession.

After telling us that a very good placebo is the No. 35 unmedicated homœopathic globules, a box of which can be purchased for thirty-five cents, he says: "Placebos not only amuse and satisfy people, but you will be surprised to hear that some full-of-faith persons are chanting your praise, and are actually willing to swear that they are cured of one or another awful thing by them. Cheated into health by globules, or teaspoonful doses of flavored water, or licorice powder, as if by charm, some of whom seem to be magically benefited by a teaspoonful of —nothing, will actually thank you for saving their lives. What a sad comment on the discerning power of the nineteenth century! What a sad comment on medicine! What a gold-mine for quackery! Never prescribe bread pills; it is not right to make a patient pay for bogus medicine!"

I have no comment to make upon such teachings as this. Surely the time of young men preparing for a learned and honorable profession could be better employed than by learning how they could best impose upon a too credulous public. But there are other men—men of high standing in the profession—who, although they would blush to give such instruction as is given in the "Physician Himself," nevertheless, in their practice do not hesitate to prescribe medicines where there are no indications for their use. Not long since a patient of mine afflicted with a malignant disease made a tour among the physicians of New York and Philadelphia for the purpose of getting additional advice. He returned with his wallet well filled with prescriptions from the most eminent medical gentlemen of these two cities, prescriptions which the men who gave them must have known were utterly worthless, so far as any effect they could have upon the disease. So, also, at consultations, where eminent council has been called, perhaps from a distance. Do we not often hear in the consultation room such language as this: "Doctor, the disease of your patient is pursuing its regular course toward recovery, but it will, perhaps, be better, in order to amuse him, that he should have something to take"; or this: "The fatal termination cannot be averted; but still we will be expected to prescribe something"; and in both cases the inevitable placebo is the result. The custom of prescribing remedies in cases in which the disease is necessarily fatal, or else tends naturally to recovery, or in any case in which the morbid process is pursuing a course from which it cannot be diverted, is to pander to a popular prejudice. It is undignified; it encourages quackery. Popular prejudices in regard to medicine have their origin in the medical profession, and it is this custom of always prescribing a drug in every case of sickness which has educated the people in the belief that for every disease there is a remedy, and that in the form of some drug. This erroneous impression is kept alive by the use of the placebo.

The confidence in the powers of drugs is so rooted and grounded in the minds of the people; it is so much a fact of the warp and woof of their nature that it is not likely that it can soon be eradicated. The measure of the life of everything is the period of its growth, and as it has required many centuries to bring the mind of the people to its present condition, it will probably be many years before it can be changed. This being the case, there can be no doubt that the physician who practices medicine solely for worldly gain will probably succeed better by giving than he would by withholding drugs. The average man who opposes popular prejudice generally succeeds in making a martyr of himself, and the average physician, who would only give a medicine when he saw a clear indication for its use, would probably soon be so disgusted with his want of success that he would either leave the practice of medicine, or the practice would leave him. The English historian Macaulay says "He is the successful man who appreciates the spirit of the age in which he lives." The word successful is here used in its commercial sense. If success is the measure of appreciation, there can be no doubt that the manufacturing chemist, the patent-medicine vender and the quack fully appreciate the spirit of this age. The evidences of their prosperity can be seen in their palatial residences and the imposing blocks which they have erected in most of our large cities.

Were I addressing a society of young men preparing for the practice of medicine, who desired success, simply in this commercial sense of the word, I would advise them to study the spirit of the age. I would tell them to take a six months' course of lectures at some cheap medical college, to supply themselves with the life of P. T. Barnum, a copy of "The Physician Himself," and take a journal on new remedies. With these three books, together with a handsome case well filled with placebos, and a fast trotting horse attached to a doctor's phaeton, he would have all that was necessary. Thus equipped, the young fledgling would be able to outstrip and ride down many men of ripe experience and rare attainments,—many modest, truthful, honest men, the latchet of whose shoes this impostor would not be worthy to unloose. But I trust I am addressing men who have a higher aim than the mere money which they can extract from the pockets of their patients. No amount of cheap notoriety or of ill-gotten gain can bring the happiness to its possessor which the conscientious man has in the faithful performance of duty. In the language of Dr. Flint, "The physician of the future will not be regarded as a mere therapeutist, but will be looked upon as a medical counsellor, whose duties embrace the preservation of health and the *prevention* not less than the *cure* of disease. When this time comes patients will congratulate themselves and be congratulated by their friends when it is decided by their physician that no drug is required."

If we can scarcely excuse the young physician struggling for a livelihood and for position for yielding to popular prejudices, we have no words which will express our contempt for the men in the front rank of the profession who resort to such contemptible practices. Authors of medical works, professors in our medical colleges, who take advantage of the ignorance of a patient to extort a paltry fee, are little better than impostors. We can never cure quackery by resorting to the tricks of the quack. In this case, at least, the doctrine "Similia Similibus Curantur" will not work. So long as such customs prevail, the public cannot be educated into proper ideas regarding disease and its remedy, nor will they be able to distinguish between a recovery and a cure. When we give up the use of the placebo, and only prescribe a drug when it is clearly indicated, when we teach our patients the fact that the majority of diseases are self-limited, that others are necessarily fatal, and that there is still another class which can be greatly benefited by the judicious use of remedies, in a word, when we are honest with the public, we will receive the confidence which we deserve, and then, and not till then, will we rise above the charlatan, and all forms of irregular practice will be impossible.

Before closing, I wish again to enter my solemn protest against this continual interference with natural and salutary processes. I protest against it in the name of helpless infancy, whose cries for natural wants go unheeded, I protest against it in the name of sick and suffering humanity, whose natural desires and appetites are disregarded, I protest against it in the name of science, which is thereby disgraced, and finally, I protest against it in the name of God himself, whose wise laws are so ruthlessly violated.

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INCISED INJURIES OF THE PHARYNX, ŒSOPHAGUS AND TRACHEA, AND THEIR TREATMENT.

BY H. LANDIS GETZ, M.D.,
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Whatever may be the extent of incised injuries of the pharynx, the œsophagus or the trachea, they are not necesssarily fatal. In the operation for tracheotomy incisions are usually made in a vertical direction, and in themselves are not serious, that is to say, the patient seldom perishes from the effects of the operation. In operations upon the œsophagus, where the incisions are also made in a vertical direction, statistics show that the percentage of deaths after such operations is small, and that the deaths which do occur are due to accidental complications, such as might occur after surgical operations in other portions of the body, rather than to any special predisposition which might exist in this particular œsophageal region.

That which applies to injuries of the trachea and the œsophagus and their treatment, also applies to injuries of the pharynx and their treatment. There is, perhaps, no class of incised wounds which the surgeon is called to treat, in which he experiences so much difficulty and hindrance to what we understand as "union by first intention," as in the class of injuries referred to in this paper. Especially is this true when the wounds are transverse, the principal hindrances to early union being the acts of respiration and deglutition, and the almost impossibility of fixing the head firmly.

We have thus far referred chiefly to the wounds as made in operations on these parts. The class of wounds which we are most often called to treat are those inflicted with murderous or suicidal intent Wounds inflicted with the latter motive are in most instances of a transverse character, while those inflicted with the former motive are likely to be of varying direction In the treatment of these injuries, too much care cannot be exercised in, first, the ligation of bleeding vessels, second, in the careful and thorough approximation of the cut surfaces, and third, perfect fixation so far as this is possible The silk or animal ligature may be used for ligating or suturing purposes

When there is a transverse severance of the trachea (especially when the severance is complete) several sutures should be placed in such a manner that the suture will be supported by a ring of cartilage above and below, for this purpose the animal ligature should be used, and the ends cut close, the other sutures used in the approximation of the trachea are, perhaps, as comfortable, and quite as efficient When silk is employed, it should be passed through the muscular tissues upon the surface of the trachea only, one end should be cut close, and the other brought to the surface between the superficial sutures The ligatures if any are necessary, should be treated in a similar manner as the sutures last described The advantage to be derived from this plan of treatment is, that by having several sutures embrace the cartilage, one is much more certain of securing the edges of the wound for a time sufficiently to secure union by first intention—at least at some points, if not throughout, and, by allowing the ends of the deep sutures and ligatures to pass to the surface, between the superficial sutures, a perfect drainage is established, thereby guarding against abscess formation, and consequent hindrance to the rapid union of the deeper parts, and yet so trifling an interference to the union of the superficial parts that it practically amounts to nothing Another advantage in allowing the ends of the deep sutures to protrude, as suggested, is that when they become detached they are easily removed, and are no longer a source of irritation to the parts The same applies to treatment of wounds of the œsophagus and pharynx when sutures are required, except that here the sutures should all be passed through the entire wall of the injured part, and be placed at intervals not exceeding one quarter of an inch, this last suggestion should also be observed in placing sutures in the trachea

The more superficial parts should now be cleansed of clots, and neatly approximated by interrupted superficial sutures, which may consist of any convenient substances I have found the silkworm gut suture an admirable article, producing, perhaps, less irritation than anything I have ever used in the way of a suture Compresses and bandages, together with adhesive strips to secure the fixation of the head, complete the dressing, which should not be removed for at least three days, and if no particular indication for the removal of the dressing arise, it may be allowed to remain undisturbed for a longer time The patient should be nourished *per rectum* during this time afterward he may and should take food into the stomach through a suitable tube until such time as (when the œsophagus is the injured part) he is able to take liquid food in the usual manner, and without leakage through the œsophageal wound into the trachea, when the latter is involved in the injury Should the parts not satisfactorily unite, much may be done to hasten the closure of the wound by scarifying the now granulated surfaces, and by re-suturing In injuries of the trachea, or in operations such as tracheotomy, etc, the patient is best nourished by means of a stomach tube, when of such an age that he can be made to understand the advantage to be derived from this method of taking food The advantage of tube nourishing is mainly the insurance of less movement of the parts than when food or drink is taken in the usual manner

This plan of treatment was adopted, in the main, with excellent results, in the following case

Adult male, aged about 30 About 2 A M cut his throat with jack knife, bled and fainted, recovered consciousness, and about 6 A M cut it again, bled and fainted, recovered consciousness, and about 11 A M grasped the trachea with one hand and the jack-knife in the other and deliberately severed the parts between the upper portion of the larynx and the hyoid bone, so that when the head was thrown back there was a gap of several inches between the hyoid bone and the upper surface of the larynx, and only about an inch (in breadth) of the posterior wall of the pharynx remained intact, all the tissues from the carotid artery of one side to the carotid of the opposite side being severed, and both these arteries exposed to view It may be here stated that the patient was discovered about 1 P M of same day, clothing, bedding and floor of room saturated with blood, and he almost pulseless

Seeing what he had survived thus far, I gave it as my opinion that he had about one chance in a thousand for recovering In this I was discouraged by the positive statement from two competent surgeons who assisted in dressing the wound that the man could not possibly recover, and that all the time spent in trying to thoroughly, properly and carefully dress the wound would be in vain He recovered in a manner which was very surprising The moral which may be drawn is Always give the patient a chance for life, he is entitled to it

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NOTE ON THE TREATMENT OF DROPSY BY CONCENTRATED SOLUTIONS OF SALINE CATHARTICS

BY WM G EGGLESTON, A M, M D,
OF PHILADELPHIA, PA

In the London *Lancet* for April 21, 1883, Mr Matthew Hay gives the details of an interesting case of dropsy treated by the use of concentrated solutions of saline cathartics This was suggested to him by observing, during the course of an investigation of the physiological action of saline cathartics, the effect of the administration of such a cathartic on the concentration of the blood He succeeded in "demon-of its growth, and as it has required many centuries to bring the mind of the people to its present condition, it will probably be many years before it can be changed This being the case, there can be no doubt that the physician who practices medicine solely for worldly gain will probably succeed better by giving than he would by withholding drugs The average man who opposes popular prejudice generally succeeds in making a martyr of himself, and the average physician, who would only give a medicine when he saw a clear indication for its use, would probably soon be so disgusted with his want of success that he would either leave the practice of medicine, or the practice would leave him The English historian Macaulay says "He is the successful man who appreciates the spirit of the age in which he lives" The word successful is here used in its commercial sense If success is the measure of appreciation, there can be no doubt that the manufacturing chemist, the patent-medicine vender and the quack fully appreciate the spirit of this age The evidences of their prosperity can be seen in their palatial residences and the imposing blocks which they have erected in most of our large cities

Were I addressing a society of young men preparing for the practice of medicine, who desired success, simply in this commercial sense of the word, I would advise them to study the spirit of the age I would tell them to take a six months' course of lectures at some cheap medical college, to supply themselves with the life of P T Barnum, a copy of "The Physician Himself," and take a journal on new remedies With these three books, together with a handsome case well filled with placebos, and a fast trotting horse attached to a doctor's phaeton, he would have all that was necessary Thus equipped, the young fledgling would be able to outstrip and ride down many men of ripe experience and rare attainments,—many modest, truthful, honest men, the latchet of whose shoes this impostor would not be worthy to unloose But I trust I am addressing men who have a higher aim than the mere money which they can extract from the pockets of their patients No amount of cheap notoriety or of ill-gotten gain can bring the happiness to its possessor which the conscientious man has in the faithful performance of duty In the language of Dr Flint, "The physician of the future will not be regarded as a mere therapeutist, but will be looked upon as a medical counsellor, whose duties embrace the preservation of health and the *prevention* not less than the *cure* of disease When this time comes patients will congratulate themselves and be congratulated by their friends when it is decided by their physician that no drug is required"

If we can scarcely excuse the young physician struggling for a livelihood and for position for yielding to popular prejudices, we have no words which will express our contempt for the men in the front rank of the profession who resort to such contemptible practices Authors of medical works, professors in our medical colleges, who take advantage of the ignorance of a patient to extort a paltry fee, are little better than impostors We can never cure quackery by resorting to the tricks of the quack In this case, at least, the doctrine "Similia Similibus Curantur" will not work So long as such customs prevail, the public cannot be educated into proper ideas regarding disease and its remedy, nor will they be able to distinguish between a recovery and a cure When we give up the use of the placebo, and only prescribe a drug when it is clearly indicated, when we teach our patients the fact that the majority of diseases are self-limited, that others are necessarily fatal, and that there is still another class which can be greatly benefited by the judicious use of remedies, in a word, when we are honest with the public, we will receive the confidence which we deserve, and then, and not till then, will we rise above the charlatan, and all forms of irregular practice will be impossible

Before closing, I wish again to enter my solemn protest against this continual interference with natural and salutary processes I protest against it in the name of helpless infancy, whose cries for natural wants go unheeded, I protest against it in the name of sick and suffering humanity, whose natural desires and appetites are disregarded, I protest against it in the name of science, which is thereby disgraced, and finally, I protest against it in the name of God himself, whose wise laws are so ruthlessly violated

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INCISED INJURIES OF THE PHARYNX, ŒSOPHAGUS AND TRACHEA, AND THEIR TREATMENT

BY H LANDIS GETZ, M D,

OF MARSHALLTOWN, IOWA

Whatever may be the extent of incised injuries of the pharynx, the œsophagus or the trachea, they are not necesssarily fatal In the operation for tracheotomy incisions are usually made in a vertical direction, and in themselves are not serious, that is to say, the patient seldom perishes from the effects of the operation In operations upon the œsophagus, where the incisions are also made in a vertical direction, statistics show that the percentage of deaths after such operations is small, and that the deaths which do occur are due to accidental complications, such as might occur after surgical operations in other portions of the body, rather than to any special predisposition which might exist in this particular œsophageal region

That which applies to injuries of the trachea and the œsophagus and their treatment, also applies to injuries of the pharynx and their treatment There is, perhaps, no class of incised wounds which the surgeon is called to treat, in which he experiences so much difficulty and hindrance to what we understand as "union by first intention," as in the class of injuries referred to in this paper Especially is this true when the wounds are transverse, the principal hindrances to early union being the acts of respiration and deglutition, and the almost impossibility of fixing the head firmly

We have thus far referred chiefly to the wounds as made in operations on these parts The class of wounds which we are most often called to treat are those inflicted with murderous or suicidal intent Wounds inflicted with the latter motive are in most instances of a transverse character, while those inflicted with the former motive are likely to be of varying direction In the treatment of these injuries, too much care cannot be exercised in, first, the ligation of bleeding vessels, second, in the careful and thorough approximation of the cut surfaces, and third, perfect fixation so far as this is possible The silk or animal ligature may be used for ligating or suturing purposes

When there is a transverse severance of the trachea (especially when the severance is complete) several sutures should be placed in such a manner that the suture will be supported by a ring of cartilage above and below, for this purpose the animal ligature should be used, and the ends cut close, the other sutures used in the approximation of the trachea are, perhaps, as comfortable, and quite as efficient When silk is employed, it should be passed through the muscular tissues upon the surface of the trachea only, one end should be cut close, and the other brought to the surface between the superficial sutures The ligatures if any are necessary, should be treated in a similar manner as the sutures last described The advantage to be derived from this plan of treatment is, that by having several sutures embrace the cartilage, one is much more certain of securing the edges of the wound for a time sufficiently to secure union by first intention—at least at some points, if not throughout, and, by allowing the ends of the deep sutures and ligatures to pass to the surface, between the superficial sutures, a perfect drainage is established, thereby guarding against abscess formation, and consequent hindrance to the rapid union of the deeper parts, and yet so trifling an interference to the union of the superficial parts that it practically amounts to nothing Another advantage in allowing the ends of the deep sutures to protrude, as suggested, is that when they become detached they are easily removed, and are no longer a source of irritation to the parts The same applies to treatment of wounds of the œsophagus and pharynx when sutures are required, except that here the sutures should all be passed through the entire wall of the injured part, and be placed at intervals not exceeding one quarter of an inch, this last suggestion should also be observed in placing sutures in the trachea

The more superficial parts should now be cleansed of clots, and neatly approximated by interrupted superficial sutures, which may consist of any convenient substances I have found the silkworm gut suture an admirable article, producing, perhaps, less irritation than anything I have ever used in the way of a suture Compresses and bandages, together with adhesive strips to secure the fixation of the head, complete the dressing, which should not be removed for at least three days, and if no particular indication for the removal of the dressing arise, it may be allowed to remain undisturbed for a longer time The patient should be nourished *per rectum* during this time, afterward he may and should take food into the stomach through a suitable tube until such time as (when the œsophagus is the injured part) he is able to take liquid food in the usual manner, and without leakage through the œsophageal wound into the trachea, when the latter is involved in the injury Should the parts not satisfactorily unite, much may be done to hasten the closure of the wound by scarifying the now granulated surfaces, and by re-suturing In injuries of the trachea, or in operations such as tracheotomy, etc, the patient is best nourished by means of a stomach tube, when of such an age that he can be made to understand the advantage to be derived from this method of taking food The advantage of tube nourishing is mainly the insurance of less movement of the parts than when food or drink is taken in the usual manner

This plan of treatment was adopted, in the main, with excellent results, in the following case

Adult male, aged about 30 About 2 A M cut his throat with jack knife, bled and fainted, recovered consciousness, and about 6 A M cut it again, bled and fainted, recovered consciousness, and about 11 A M grasped the trachea with one hand and the jack-knife in the other and deliberately severed the parts between the upper portion of the larynx and the hyoid bone, so that when the head was thrown back there was a gap of several inches between the hyoid bone and the upper surface of the larynx, and only about an inch (in breadth) of the posterior wall of the pharynx remained intact, all the tissues from the carotid artery of one side to the carotid of the opposite side being severed, and both these arteries exposed to view It may be here stated that the patient was discovered about 1 P M of same day, clothing, bedding and floor of room saturated with blood, and he almost pulseless

Seeing what he had survived thus far, I gave it as my opinion that he had about one chance in a thousand for recovering In this I was discouraged by the positive statement from two competent surgeons who assisted in dressing the wound that the man could not possibly recover, and that all the time spent in trying to thoroughly, properly and carefully dress the wound would be in vain He recovered in a manner which was very surprising The moral which may be drawn is Always give the patient a chance for life, he is entitled to it

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NOTE ON THE TREATMENT OF DROPSY BY CONCENTRATED SOLUTIONS OF SALINE CATHARTICS

BY WM G EGGLESTON, A M, M D,

OF PHILADELPHIA, PA

In the London *Lancet* for April 21, 1883, Mr Matthew Hay gives the details of an interesting case of dropsy treated by the use of concentrated solutions of saline cathartics This was suggested to him by observing, during the course of an investigation of the physiological action of saline cathartics, the effect of the administration of such a cathartic on the concentration of the blood He succeeded in "demonstrating from experiments on man and dogs that if the salt be given in a concentrated solution when the alimentary canal contains little or no fluid, it produces an almost immediate and very decided concentration of the blood, owing to the blood becoming deprived of a large amount of its water through the intestinal secretion which the salt excites." He found, however, that this concentration of the blood does not occur if the salt is dissolved in sufficient water, or if the alimentary canal contains sufficient fluid at the time of administration. The amount of rapidity of this concentration was quite remarkable; the maximum was reached within half an hour after the injection of the salt, and in the case of a man to whom sulphate of soda ʒvj, dissolved in water ℥iij, had been given, the number of blood corpuscles in each cm of blood rose from 5,000,000 to 6,790,000. Mr Hay found that this concentration is reduced to normal in about four hours, and thinks that this reduction is not due to the absorption of fluid from the intestines, but "by the abstraction of lymph and other fluids from the tissues."

The illustrative case given by Mr Hay was one of ascites from organic heart lesion. A dilute solution of a saline cathartic had been administered a few days before he saw the patient, but with none other than slight relief. He ordered as little as possible food and liquids during the night before the administration of the saline and sulphate of magnesia ʒvj dissolved in two tablespoonfuls of water—no water to be given afterward. The result was that in twenty four hours after first seeing the case the anasarca was greatly diminished and the dyspnœa almost gone. The purgative action of the salt began in less than an hour after its administration, and there were several evacuations in the course of the next few hours. In a few days the dropsy had disappeared, and there was no return during the month of observation. Mr Hay remarks that he has found this treatment more useful in general than in local dropsies, and of general dropsies most beneficial in those dependent on a stasis of the circulation, as cardiac dropsy. This remark has induced me to submit the following case, illustrative of the efficacy of this treatment in a local dropsy, not dependent on heart lesion.

Robert C——, aet 25, came under observation on August 28, 1881, with history of a severe cold and cough, with pain in the left side of the chest, about four months previously—April. Since that time he had noticed that although the pain was absent there was an uneasy feeling in that side of the chest, and there was a gradually increasing dyspnœa. The patient was thin and sallow, but little cough; respiration, 30. He was unable to take a full inspiration. On examination of the chest there was flatness on percussion over the whole of the left side up to the clavicle. There was no respiratory movement on this side of the chest, while it was increased on the right side. The apex beat of the heart was on the right side of the sternum. These, with other physical signs, showed that the case was one of pleuritic effusion (Aspiration, with a large needle of a hypodermatic syringe, showed the fluid to be sero fibrinous). Fearing, from the amount of effusion and the length of time during which it must have been going on, that the left lung would be seriously impaired, I proposed tapping, but the patient would not consent to this. He had taken, on the previous day, by the advice of a friend, half a teaspoonful of calomel, which had already begun to affect him in an unpleasant manner. He was ordered to abstain from water and liquid food as much as possible, and to take, the next morning, sulphate of magnesia ʒvj, in less than half a glass of water.

When the patient was seen two days afterwards, there was a marked decrease in the amount of effusion. The level of the fluid was between three and four inches below the clavicle, the dyspnœa had decreased, and with the exception of weakness, the patient felt better. The salt had operated first in about three quarters of an hour, and during the day there had been eight other large watery evacuations. As the patient said, the water had literally poured from him. Another dose of the salt, ʒiv, was ordered to be taken the next morning, August 11. When seen on the 12th, the fluid was still further diminished, and fl ext jaborandi ♏xx administered, which produced a copious perspiration. On the 15th of August the fluid had almost entirely disappeared from the chest, the lung had resumed its functions, and there was no dyspnœa. When last seen, February, 1883, there had been no return of the fluid.

Mr Hay remarks that the alteration of the volume of the blood takes place apparently without any change in the blood pressure, and the blood would, therefore appear to abstract the tissue fluids in virtue solely of its concentrated condition; also that the "presence of the salt in the blood may also influenct the tissue fluids by acting on them endosmotically." It would seem, however, that the presence of the sale in the blood could scarcely be reckoned as a factor in this action. The concentrated condition of the blood would be sufficient for an osmotic action into the vessels from the tissues, and seeing that the fluid in the intestines is so much more saline than the blood, exosmosis would not be likely to occur even to a limited extent, sulphate of magnesia being of such low diffusive power that it does not readily find its way from the intestinal canal into the blood.

The fact noted by of Mr Hay, that the concentrated saline cathartic removes the fluid both by the intestines and kidneys was noticed in the case of my patient. While sulphate of magnesia produces such an abundant intestinal secretion, there is but little intestinal irritation and systemic disturbance; and its great solubility is a point in its favor, as it is not necessary to take the large amount of water which would be required to dissolve some of the other salines, as sulphate of soda. This rapid removal of fluid by two channels is an important consideration in critical cases of dropsy, and is worthy of a further trial.

Professor Theodorf von Frerichs, of Berlin, is dead. The fourth German Medical Congress, which will be held in Wiesbaden from April 8 to 11, was to have been under his presidency.

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS.

THALLIN, A NEW ANTIPYRETIC.—Dr. Rudolph von Jacksch has made a report on this drug to the Society of Physicians, of Vienna. He (*Glasgow Med. Jour.*) examined the physiological and therapeutical properties of a number of chinolin bases, as newly combined by Dr. Skrauss, and found that certain of these bodies, *e. g.*, chianisol, which, according to Skrauss, forms the half of the quinine molecule, possesses only slight and ineffectual therapeutic power. Further, one of these bases—the tetrihydroparaoxychinolin, possesses a poisonous influence on the lower animals. After a number of experiments, he obtained a chinolin base, which he defines as a hydrated parachinanisol, and which he found to operate very energetically on a fever tempeiature, and also to possess tolerably strong anti-fermentative powers. In 0.2 per cent. solutions its salts retard the ammoniacal fermentation of the urine. A preparation of ½ per cent. completely suspends this fermentation. Similarly, they tend to restrain the fermentation and decomdosition of milk, and the alcoholic fermentation of sugar. The salts of this base comprise the tartrates, sulphates, and hydrochlorates. Chemically, when treated with the chloride of iron or with oxidizing substances generally, they produce green colored salts. Accordingly, Skrauss has named the base thallin. Besides these salts, another thallin base was used, viz., æthythallin; this gives a red color with chloride of iron. Jacksch treated 86 consecutive cases of fever with these salts. He was able, by giving this remedy 2–3 hours before the expected attack, to subdue the fever and all other symptoms of the attack, as headache, sweating, etc., and to cut short a fit of the fever already present, but could not cure a single case of intermittent fever without finally prescribing quinine. The same effect was produced on typhoid—a fall of temperature of several degrees in a few hours; also with acute rheumatism, measles, puerperal septicæmia, pneumonia, erysipelas and tuberculosis. One symptom, the fever, is quickly reduced; all the other symptoms remain.

The thallin salts, then, as also æthythallin, in combination with hydrochloric acid, are excellent antipyretics, as in doses of ¼ grm.—certainly in doses of ½–¾ gr.—they produce a very noticeable fall of temperature, in most cases amounting to several degrees. The fall of temperature is almost always accompanied by copious sweating. The lowest point is reached, usually, 3–4 hours after exhibition of the drug, and the rise follows in the course of 4–5 hours. As to the urine, after the exhibition of the drug it contains no albumen, sugar, or biliary matter. Its color is brown in a thick layer, green in a thin layer. With chloride of iron, it takes on a red color. The salt formed by combination of sulphuric acid and thallin appears to act somewhat more energetically than the other two. The hydrochlorate of thallin is somewhat less active than the above-named salts in its effects on fever. They act, in many respects, similarly to kairin; they possess, however, many important advantages over it. They act more promptly. Kairin in the fever of tuberculosis is almost worthless; thallin, on the other hand, proves itself very powerful in this very fever. Kairin, besides producing sweating and rigors, occasions vomiting, cyanosis and collapse; these latter symptoms are not seen in the case of thallin. Dr. Jacksch, after discussing the subject at some length, draws the following conclusions:

1. Thallin preparations are conspicuous antipyretics; still, they are not specifics.
2. Among the thallin salts, that one which is in combination with sulphuric acid chiefly recommends itself for further experiments.
3. Their employment is indicated in those cases in which fever is very persistent, or where, owing to the high temperature, the patient is placed in danger.

MEDICINE.

THE ALKALINE TREATMENT OF DIABETES.—Dr. Minkowski (*Archiv fur experimentelle Pathologie*), says that large quantities of oxybutyric acid are sometimes present in the urine of diabetics, and the two cases in which the presence of this substance has been carefully noted died of coma. He suggests that the cause of death was the loss of alkali from the organism, due to the presence of the large quantity of acid. Walter has shown that the introduction of acids into the blood of herbivora causes symptoms like those of diabetes, especially the peculiar dyspnœa, but the same result was not obtained in carnivora, or in a man. But he has tried the effect of giving alkalis in a case of diabetic coma, by introducing a large quantity of sodium carbonate by the mouth and rectum. Although the patient ultimately died, he recovered consciousness, and expressed himself better. The *post mortem* examination was negative. The results of Minkowski's researches give additional support to the alkaline treatment of diabetes, which has enjoyed much repute. Le Nobel, in a recent paper, says that acetic, formic and sulpho-cyanogen compounds, all of which may occur in the urine, give a red coloration with ferric chloride, which appears on acidulation, but not on heating. This last characteristic is the only means of distinguishing these compounds from aceto acetic acid, so that after obtaining the color reaction, the effect of heat must be tried, and wherever the color does not disappear, the presence of aceto acetic acid must be regarded as doubtful.—*The Medical Record, Feb. 7, 1885.*

EPHEMERAL ŒDEMA OF GOUTY ORIGIN.—Negel, of Jassy, reports (*Le Progres Medical Practitioner*) an interesting case of a lady, aged 40, strong and stout, who had been subjected to malarial influences, and who had complained at times of rheumatic pains, situated principally in the joints. She was, moreover, very nervous, but had never had any chilblains. She was liable to gastric attacks, with vomiting, meteorism and pain. Ten years ago, when bathing in a river, her whole body became swollen, and her skin itched violently. This accident did not recur till 1881. From that time whenever she washed her hands in water at the ordinary temperature, in from two to five minutes she felt frightful itching in the fingers, sharp pain, a sensation of burning and constriction, like a biting heat, some minutes after the fingers swelled, becoming red and shiny, the local temperature was a little raised The swelling did not pit on pressnre, but the redness disappeared, to return immediately At the end of one to three hours all had passed away According to her own statement, this same swelling might occur in the feet, arms, nose, ears or any part of the body It might occur also from cold, or contact with any cold body The nose or ears were often attacked when she went out of doors The urine was free from albumen and sugar On the supposition that the phenomena depended upon gout, salicylate of sodium and liquor arsenicalis were prescribed, with two alkaline baths weekly At the end of a month she was completely cured, the attacks no longer recurring under the influence of any of the above mentioned causes

THE PATHOLOGY OF CHEYNE-STOKES' BREATHING —Some histological alterations in the bulb and pneumogastric nerves, to which changes he attributes the phenomena of Cheyne Stokes' respiration, have been recently discovered by Tizzoni This mode of respiratory rhythm consists in the presence of a prolonged pause followed by respiratory movements, at first slow and superficial, but gradually rising in frequency and increasing in depth, again slowly to decrease So much misunderstanding has arisen on the subject of what is and what is not meant by this named mode of respiratory rhythm that Tizzoni has done well to state precisely what it is that he meant In one of his cases there was organic heart disease, and the respiratory phenomena lasted forty days At the autopsy chronic inflammatory changes were found ascending the vagi, with blood extravasation into the lymphatic spaces of the perineurium and endoneurium On the left side only the peripheral portion of the nerve was affected, whilst the right nerve was altered along the whole of its course, even to its origin In the bulb the changes existed in the form of small foci, and were also more marked on the right side The point where the alterations were most prominent was beneath the ependyma over the longitudinal furrow of the calamus scriptorius In a second case, which was one of uræmia, the phenomena were observed for several days The vagi were normal, but the superior half of the medulla oblongata presented lesions similar to those just described, though less pronounced and symmetrical —*Lancet*

SURGERY.

TELESCOPIC CATHETERIZATION —Dr A E Dugas, of Augusta, Ga , gives an account of a method employed by him in cases of retention from so called impermeable stricture of the urethra

He takes the largest sized gum-elastic catheter which will enter the meatus, passing it down until arrested at the narrowed portion of the urethra It is then withdrawn, cut off just above the eye, the edges smoothed off, and then reinserted When it has passed as far as it will go the end is cut off about an inch from the meatus, and the rest of the tube tied so as to prevent slipping from the canal Now another catheter is chosen of a size that will pass through the one *in situ*, and is inserted as far as it will go It will probably pass farther than the first one, but if not, a smaller size must be selected If this do not enter the bladder it is to be passed as far as possible, and then the eye cut off as in the first case Now a third catheter passed through number two will almost surely enter the bladder, except in the very worst cases The larger or outer instruments serve, Dr Dugas states, not only to ward off and exhaust the contractions of the urethra, but also act as a stiff handle to direct and guide the smaller and more flexible instruments passing through them

In connection with this subject the writer states his belief that a great many more cases of retention of urine are due to some slight derangement of the kidneys than to the urethra And he says that he has "frequently relieved such cases like magic by a dose of nitrate of potassa, say ten or fifteen grains, twice a day or oftener The trouble is not that there is too much water in the bladder, but that what water is there is very irritating, and the urethra being more or less strictured, revolts against its passage"—*Medical Record*, Feb 21, 1885

PALATO PLASTY —Dr Ulysse Trelat has made an interesting communication to the Paris Academy of Medicine on this subject After discussing his reasons at considerable length he lays down the following precepts

1st Plastic operations upon the palate should not be attempted at an earlier age than seven years Before that time they are dangerous, compromising, or useless

2d Those who are to be operated upon should be submitted to a very careful education as soon as they pronounce their first words up to the time of operating, and the same should be persisted in after the operation This is the only means of avoiding deception and hastening the period of functional cure

In forty-six cases of this operation Dr Trelat has not lost one He operates on his patients while they are in the horizontal position, the head hanging down over the edge of the bed, this raws the blood away from the œsophagus and bronchi, and it passes out through the nostrils where it can be sponged Anæsthesia must be complete The operator places himself behind the head of the patient, and during the entire operation the mouth is kept open by an oral speculum, which separates the teeth on either side and depresses the tongue The operation should not take longer than thirty to forty minutes The suture being firm and the parts yielding, the patient may be nourished on the evening of the operation by liquid food, which should be continued for ten or twelve days In favorable cases a cure is effected in four days Frequently the sutures have been removed on the third day, and never left to the sixth day Careful treatment is continued for a week longer and the cure is complete

THE
Journal of American Medical Association.
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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Per Annum in Advance	$5 00
Single Copies	10 cents

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Address

Journal of The American Medical Association,
No 65 Randolph Street
Chicago Illinois

SATURDAY, MARCH 28, 1885

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION—SUGGESTIONS FOR FUTURE MANAGEMENT

Three principal sources of embarassment have been encountered in conducting the Journal thus far, the brief statement of which will naturally lead to the important suggestions for improvements First, the absence of any definite rule in regard to the time when members of the Association who do not attend the annual meetings shall pay to the treasurer their annual membership dues, has led so many of them into the habit of postponing such payment until near the end of the year, that the editor or business manager of the Journal cannot know, even proximately, at the commencement of the year how many copies will be needed to supply the membership, nor can he have any reliable knowledge of the amount of money which will be available for paying for editorial work, in the various directions necessary for making the Journal what all parties wish it to be For instance, in each of the two past years, the Board of Trustees have sanctioned contracts for printing, mailing, etc, calling for an expenditure of $11,000 or $12,000 per annum, and authorized the expenditure of $6,000 more for editorial work Yet, at the commencement of each of those years, there was actually in the treasury hardly more than half the amount necessary to pay the printing contract for the year, while the amount required for paying the other half and all the editorial expenses, was still in the pockets of the permanent members and subscribers, where a large part of it remained until the last half of the year Had the $17,000 or $18,000, authorized to be expended by the Board of Trustees, been actually in the treasury at the beginning of the year, the Editor could have safely employed, at once, a number of assistants, representing the principal departments of medicine, and regularly drawn on the treasurer every month for their pay, as well as for the pay of the printer Had he attempted to do this, however, under the existing state of finances, he would have drawn every dollar from the treasury during the first six months of the year, and the work would have stopped for want of funds to pay either printing or postage

The Editor, knowing full well that the two last named items must be provided for as an essential step towards success, ventured to employ only one Assistant Editor, whose duty was to keep the department of the Journal devoted to "Medical Progress," well filled with carefully selected and condensed material of interest and value, paying him monthly By deferring all pay for his own services, and limiting thus the number of paid assistants, he conserved enough in the treasury to pay all publication expenses promptly, and at the end of the year from the later collections, received for himself a reasonable remuneration for the editorial work performed, and left a surplus sufficient to pay the other current expenses of the Association, as shown in the three preceding editorial articles upon this subject Adhering to the same cautious policy thus far during the second year, though employing nearly double the amount of paid editorial assistance, promises to be attended by still better results Yet it is easy to see that the whole business of editing and publishing the Journal, could have been conducted with more satisfaction and efficiency, if the whole amount due from members and subscribers had been actually in the treasury at the beginning of the Journal year As all members who attend the annual meetings are required to pay their dues before registering, we think the Association, at its coming meeting in New Orleans, ought to adopt a rule that all permanent members should pay the annual dues before the first day of July of each year And if any defer payment until a later period, they should forfeit all claim for back numbers of the Journal to complete the volume already in progress of publication at the time of such payment

Second Another source of annoyance, if not of positive embarrassment, especially during the present year, has been the neglect on the part of the officers of the sections and of members presenting papers to comply with the by-law of the Association, which declares all papers, reports, addresses, etc., presented to the association, or in any of its sections, to be the property of the Association, and to be published exclusively for its benefit; or with the resolution adopted at the meeting in Cleveland, which requires all addresses, papers, reports, or other written documents to be transmitted directly to the editor of the JOURNAL, or as soon after the adjournment as possible. During and after the late meeting in Washington, the papers of the section of surgery and anatomy were the only ones that were transmitted to the Editor in accordance with the by-law and resolution just referred to, while those of practical medicine, obstetrics, and others were delayed in reaching the office of publication from two weeks to three months or more. In the meantime they were accessible to the reporters or agents of other medical periodicals for making as liberal abstracts as they desired.

It is desirable to have the president's address appear in the JOURNAL of the Association issued during the same week of the annual meeting, and one of the addresses of chairmen of sections each succeeding week, until all the addresses have been published in the order in which the sections stand on the official records; while the papers should be arranged in such order as to give a fair variety of original matter in each number of the JOURNAL, giving special preference only to such papers as embody the results of original important investigations. It is needless to add that the delay in transmitting the papers and addresses during and after the meeting in Washington, was such as to entirely prevent any such order of publication as we have indicated.

We would afford the reporters and agents of other medical journals, all reasonable facilities for attending and making such reports of the proceedings of the association, and of its sections, as they might choose to make. But so long as the Association publishes a journal of its own, and expects that journal to publish all papers, addresses, etc., in full, that may be referred for such publication, both officers and members should have sufficient interest in its support, to promptly and faithfully comply with the by law and resolution of which we have already given the substance.

Third. The third source of embarassment met with in the management of the JOURNAL, is inherent in the present plan of annual contracts founded on bids made by different parties and in different localities. But this leads directly to the question as to the best mode of publication for the future, and is of sufficient importance to justify a more full consideration in the next issue of the JOURNAL.

THE SOLAR PLEXUS IN ITS RELATIONS TO DYSPEPSIA.

M. LEVEN, in a recent communication to the Sociéte de Biologie, insists on the fact that the action of medicinal substances on the digestive tract cannot be explained by a direct action on the mucous membrane and the solar plexus, but that they determine their effect by exciting that plexus. He has been led to adopt this view from clinical as well as physiological observations. Whenever the solar plexus is excited, the mucous membrane of the stomach becomes congested and dyspepsia results; in other words, dyspepsia is the direct result of excitation of the solar plexus.

But is not exhaustion of the cerebro-spinal system or of the solar plexus as frequent and important a factor in the etiology of dyspepsia as excitation? It is universally admitted that mental distress and excitement, great anxiety and physical fatigue constitute frequent causes of dyspepsia. Leven claims that this mental distress and physical prostration are forerunners, causes of sympathetic excitement. He affirms that a neurotic temperament is a primary condition, in many cases, which causes dyspepsia. Has he not reversed the order of things, and claimed the cause as the effect? There are few dyspeptics who are not nervous, but the reverse is by no means true. It will be freely admitted that the nerve ganglia of the digestive apparatus may be secondarily affected by the state of the mind, and by the ordinary sensory and motor centers, but it would seem that they participate in the exhaustion, not unduly excited by it.

Again, they may be directly involved—exhausted by overwork. A certain amount of nervous energy is required for the process of digestion, as well as for locomotion; and it is evident that if this nervous energy be expended, indigestion results. This may result from improper diet, the stomach being continually filled with the indigestible trash for which young people, especially, evince such a decided taste. This is analogous to the mental dyspepsia which as often results from the reading of the literary trash of the day.

In dyspeptic subjects, as we are well aware, pressure in the scrobiculum cordis awakens sensibility, which may extend over the whole abdomen. When this sensibility is increased the whole region becomes sensible to slight pressure, and the skin of the abdomen becomes hyperæsthetic. This hyperæsthesia depends on irritation of the solar plexus, and, according to Leven, is due to dyspepsia, and not, as Briquet holds, to hysteria. Whenever the solar plexus is irritated the mucous membrane of the stomach becomes congested, and dyspepsia results as a direct consequence

In order to obtain practical data on this subject Leven made careful observations of some four hundred cases of dyspepsia which came under his care, the results of which are very interesting In more than one-half of the cases irritation of the solar plexus followed cerebral irritation When one of the mental faculties is subjected to undue strain, there is an immediate action of the brain on the solar plexus, and *pathological congestion of the gastric mucous membrane* results This is especially observed in subjects of great nervous excitability when subjected to nervous shocks The nervous man, therefore, is in constant danger of becoming dyspeptic, a strong emotion, a fear, a sudden nervous shock may indirectly cause an attack of dyspepsia which it may be very difficult to remedy In Leven's statistics cases of nervous dyspepsia are as frequent in males as in females, and according to him, the nervous temperament is the predisposing and often the efficient cause of a great many cases of dyspepsia

Leven's statistics further show that excesses of diet, especially excesses in drinking, stand lowest as etiological factors in dyspepsia Such excesses, in a nervous subject, are very liable to be followed by dyspepsia Diseases of the abdominal and thoracic viscera, menstrual disorders, the pregnancy of lactation, hepatic and renal disorders, vesical disease and tuberculosis are causative factors in about one tenth of the cases The solar plexus, in intimate relation with the *whole abdominal* and thoracic nervous system, in direct relation with the cerebrum, is influenced by the nervous system of the vegetative functions, and every impression of this system is immediately communicated to the solar plexus and is instrumental in causing dyspepsia Of Leven's four hundred cases, about *forty*, or *one-tenth*, had previously had typhoid or intermittent fever, or an eruptive fever, and cutaneous diseases, gout and rheumatism were observed in about one-tenth of the cases But would Leven have us consider gout as a cause rather than the effect of dyspepsia? Many of his deductions are undoubtedly correct, but we fear that he has attempted to prove too much

LORETA'S OPERATION FOR SACCIFORM AORTIC ANEURISM

PROFESSOR LORETA, of Bologna, who is already well known to the medical world by his operation of divulsion of the pylorus, has recently performed a very brilliant operation for the relief of a very large sacciform aneurism of the abdominal aorta It was performed on December 18, 1884, and the patient, at last accounts, was considered well—and cured

The aneurism was about the size of the head of a fœtus at term The sac occupied the hypogastric and left hypochondriac regions, displacing the spleen and diaphragm Loreta made the diagnosis of sacciform aneurism of traumatic origin, due to pressure on the abdominal aorta between the pillars of the diaphragm during violent muscular exertion The operation was undertaken at the solicitation of the patient, on account of the violent neuralgia from which he suffered, and on account of his rapidly increasing state of malnutrition An incision was made from just below the sternum to the navel, the parietal peritoneum was adherent to the epiploon, and to the stomach and liver, beneath this there were other adhesions between the stomach and subjacent aneurismal sac Some of the adhesions were broken up, but the operator did not disturb those between the sac and the liver and spleen for fear of rupturing the sac Being able to reach neither the aorta, the cœliac axis, or the superior mesenteric artery, so as to be absolutely sure of the seat of the aneurism, he cut through the lower fold of the transverse mesocolon, thereby coming immediately to the sac, into which he thrust a very small trocar and introduced two metres of silvered copper wire The wound was then closed, the operation lasting an hour and a quarter The patient had no rise of temperature after the operation, and cicatrization was complete on the ninth day On the day following the operation the patient was sensible that the pulsations were very much diminished, improvement continued and on the twenty sixth day after the operation the tumor was solid, reduced fully one-half, and the patient was going about Loreta is confident that the aneurism was of aortic origin, from the cause assigned by the patient—severe muscular exertion in striking sail, and from the fact that the tumor was larger than would be expected to spring from any other abdominal vessel

LORETA'S NEW METHOD OF PERINEAL CYSTOTOMY

PROFESSOR LORETA has recently invented a very ingenious instrument for seizing a calculus and drawing it out of the bladder entire, or, if the stone be too large to be withdrawn through the perineal opening, it may be broken up while still in the grasp of the instrument, and the fragments removed with but little difficulty As the fragments are retained in the grasp of this instrument, the inconvenience of searching for lost fragments is not experienced It is claimed that the patients never lose urine through the wound, and that normal micturition takes place even on the day of the operation by the natural contractions of the bladder, so little is its function interfered with by the manipulations with this instrument

For the surgeon who prefers the perineal operation to the supra-pubic, or to litholapaxy, this instrument will undoubtedly prove an immense advantage It will obviate much, if not all, of the irritation to the bladder caused by the searching for fragments with different instruments, and will further obviate the contusion of the perineal tissues caused by the introduction and withdrawal of these instruments Possibly, also, the results obtained by its use will be equally as good in the perineal operation as are now derived from the usual supra-pubic method, and it may be that still better results may be obtained in the high operation with it But there is no reason to believe that cases which are favorable for rapid lithotrity would do better, or even so well, if a perineal section were performed with a view to using this instrument

CHOLERA HOSPITALS AND THE NEIGHBORING POPULATION

The question, Is a cholera hospital a source of danger to neighboring population? has recently considerably agitated the community at Bombay, and has called forth an editorial in the *British Medical Journal*, of February 28 There seems to be a considerable diversity of medical opinion in Bombay on this subject The government has recently resolved to build a cholera hospital in close proximity to the European General Hospital, but the Surgeon-General of the Bombay army has very decidedly condemned the wisdom—or whatever it may be called—of thus locating such a hospital, on the ground that it would be a dangerous procedure, inasmuch as there is a likelihood that the convalescents would be much more susceptible to an infectious disease (supposing that cholera be infectious) than people in sound health He further disapproves of the proposed appointment of the resident surgeon at the European Hospital to the charge of the cholera hospital, and "intimates that the plan proposed is in opposition to all principles hitherto laid down for the prevention of the spread of cholera, and strongly urges the expediency of abandoning a project the very nature of which is clearly fraught with danger and risk to life, and which, if continued in, will probably terminate in calamitous results"

The whole question, says the *British Medical Journal*, appears to turn on methods of management and measures of prevention "If the excretions of the patients be permitted to enter drains having a communication with the General Hospital and the neighboring houses, or to reach the water-supply, however disinfected, the danger is undeniable If, on the other hand, they be destroyed by fire, the danger, if any, will be reduced to a minimum"

RAILROAD FACILITIES TO THE ASSOCIATION MEETING

The following notice will be of interest to delegates and others who contemplate attending the meeting of the Association in New Orleans in April, and who desire to go via the Cincinnati, New Orleans & Texas Pacific Railway (Queen and Crescent route)

The rates from Cincinnati to New Orleans over this line, 827 miles by rail, available for delegates and visitors, are as follows Excursion tickets (round trip), good for forty days, $23, the same, good for fifteen days, $18, from other points along the line at correspondingly low rates Stop over privileges will be accorded at such points as the holders of the tickets may select, *en route* to New Orleans, within a period of ten days from date of leaving initial point on this line The sleeping car facilities consist of Mann boudoir cars, $5 per berth Trains leave Grand Central Union Depot, in Cincinnati, daily at 8 30 A M and 8 47 P M, arriving in New Orleans at 5 P M and 6 A M on the following day

THE INDEX MEDICUS

In another column we call attention to the announcement, by Drs BILLINGS and FLETCHER, that the *Index Medicus* will resume publication under the management of Mr George S Davis, of Detroit

This is a matter of congratulation to the whole profession, not only in America, but wherever medicine is regarded as a science Medical men, everywhere, write, and in order to write with comfort to themselves they must have a means of ready reference, and the *Index Medicus* was, *par excellence* the reference work of the world It is due the generosity and liberal mind of Mr Davis that the profession should support him—with money, not advice

BEHRING claims that bicarbonate of soda is an antidote to iodoform poisoning Since iodoform is eliminated by the urine as a salt of iodine, he believes that it extracts from the blood the alkalies with which it is combined By replacing these alkalies of the blood with bicarbonate of soda, he thinks that the organism may be rendered capable of tolerating the presence of iodoform

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY.

Stated meeting March 2, 1885

The President, D A K STEELE, M D, in the Chair

DR DAVID O'SHEA read a paper on

TYPHOID FEVER, ITS HYGIENIC AND SPECIFIC TREATMENT [1]

Regarding the etiology of this disease, he said, foul air or contamination by drinking water is not always the efficient cause of the disease The writer believes there is a true enteric bacillus to be discovered If the disease be specific in its nature, and derived *only* from some preexisting cause, or if it be produced in a person suffering from some form of fever, or generated *de novo* by the decomposition of sewage, etc, it has the same general *ensemble* of of symptoms, and the practical issue is the same—the prompt removal of the fecal matter of a patient As to there being a specific typhoid bacillus, Klebs claims to have already identified it, having found it in the blood, lymphatics and other tissues, and who knows but that this statement may be confirmed? Whether it be an hypothesis or actual discovery, remains to be proven and well tested by the most scientific scrutiny, before such announcement should be made to the medical world

It is very rare that the disease occurs to a person far advanced in years, and it is equally obvious that certain families are extremely susceptible and liable to have the disease in a severe form There is sufficient reason to apprehend a formidable attack if a parent has died of the fever The invasion may be very insidious, and, when the physician is called to see a case of suspected typhoid fever, the first thing to be done is to consider the patient's family history, and then the personal history, along with his present condition, these are important points in forming a prognosis The principles on which the treatment is conducted are generally accepted and well understood, and success depends greatly on the intelligent application of remedies to individual cases, and careful attention to details in every stage of the disease

Thirteen personal cases were then reviewed by the reader As a rule it may be said that, where possible, he had his patients placed in a large, airy, and well-ventilated room, with the doors or windows opened more or less continuously, according to the condition of the weather, the patient being placed so as to be approached from either side, the bed should also be firm and comfortable Feather mattrasses should be removed, and, when practicable, two beds should be available, one for the day and the other for the night The covering should be light, but sufficient to protect the patient from changes in the atmosphere

A record should always be kept of the morning and evening temperature, rate of pulse, amount of medicine and nourishment given, together with the number and quality of the alvine discharges The patients should be sponged night and morning with tepid water and alcohol, and the hands and face should be frequently sponged during the height of the fever If the morning temperature be above 103° Fah, and the evening about 104°, the "wet pack" applied to the chest, an ice bag to the head, and a mustard foot-bath three times in the course of twenty-four hours, will prove very efficacious and grateful

In the thirteen cases referred to all recovered, and in only one was their absolute necessity for using a bed-pan The vessel used for this purpose should always contain a disinfectant, and should be about one-third full of water, to this is added a teaspoonful of a 25 per cent solution of carbolic acid, which is kept in readiness for immediate use When the bed pan has been used by the patient, and the teaspoonful of the solution is added, if it be during the summer season, the entire contents should be buried, if during the winter, it may be emptied in a water-closet No one should occupy the same bed with the patient, and, if possible, not the same room, and only those advanced in years should act as nurses The specific treatment, as laid down by Liebermeister, Traube, Wunderlich and others, consists in the administration of ten grains of calomel at a single dose on the first day that the fever is recognized, and 8 grains a day for three or four days thereafter, or according to the condition of the bowels It is a curious fact that these large doses of calomel had an antipyretic effect in each case, with this remedy the writer could bear testimony to the shortening of the dusation, and to the decreased mortality in this disease as compared with the non-specific, expectant, or other plan of treatment The above hygienic and specific course was carried out in each case, and in not one did the temperature rise above 104 5° Fah

The complications were few and of short duration The longest period during which any of his patients were sick was twenty six days, the shortest was fifteen days Only one of the number became delirious, and in this case the disease was not recognized until the commencement of the second week, hence several days had elapsed ere any calomel was given As to whether the non-administration of the drug during the first week was the cause of the delirium, the writer could not advance a positive opinion, but this patient was sick longer than any of the others, and had more copious discharges from the bowels The true value of this plan of specific treatment in typhoid fever, however, cannot be ascertained from this limited number of cases, but he recommended that a further trial be faithfully carried out by others

DR G C PAOLI thought that in slight cases of typhoid fever we could rely upon nature to do most of the work Regarding the calomel or specific treatment, it was used fifty years ago and abandoned Venesection was practiced long before that and subsequently, and it also was abandoned The speaker continued by giving a *resume* of the tartar emetic plan to expel the poison, and the treatment with tr digitalis, etc He had seen the disease run its course in eight, nine or ten days, and again, he had seen cases that continued for twenty, twenty-five, thirty or forty days He had also seen the disease in a malignant form run a rapid course to a fatal termination He relied a great deal upon good nourishment and careful nursing of the patients and keeping them as quiet as possible He thinks that there is danger in having two beds as was suggested in the paper, for when Peyer's glands were inflamed, or cicatrization was complete, moving the patient too frequentty from one bed to another might excite ulceration again Relative to the diarrhœa in these cases, this we cannot stop, but we can modify it or keep it under control He did not believe there ever existed such a thing as a typhoid bacillus, or that such would ever be discovered He gives very little quinine in this disease, he had seen two cases die from the administration of forty grains of this salt

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[1] The abstract of this paper and the discussion were received too late for insertion in our issue of March 14

Dr C G Davis thought the writer had introduced some new and novel ideas concerning this disease Medicines are often injurious in typhoid fever There has been a great reaction in the hygienic management of this disease The idea once prevailed of scourging the disease from the system Regarding the ratio of mortality, with him it had varied at different seasons and localities from 4 to 20 per cent He thinks there can be too much medication in treating a patient A favorite prescription with him is tr nucis nucis vom , gtt i, tr aconite, rad , gtt iv, aquæ ad , ℥iv Teaspoonful every four hours This will lessen the tendency to irritation of the mucons membrane along the gastro-intestinal tract, and he did not regard it as homœopathic treatment Milk is *par excellence* the best form of food for this class of patients

Dr C E Webster had usually pursued the expectant plan of treatment in these cases, and sometimes gives brandy in teaspoonful doses as occasion requires

Dr R Randolph explained, very minutely, his plan of applying cold water to typhoid fever patients, it is refreshing to them, and produces very little fatigue An oil-cloth is placed under a patient, after his night-shirt has been pulled up over his head, and then cool water is squeezed from a sponge over the surface of the body, the oil-cloth, of course, acts as a basin to receive the water, and is then easily removed from under the patient He has never seen quidine reduce the temperature, and believed, on the contrary, to act as a cardiac depressant

Dr G W Webster spoke from personal experience in his once having had typhoid fever The cold baths to which he was subjected produced very severe shock, so severe that after two or three such ablutions he refused to submit to them further, besides, his temperature would not be reduced more than $^1/_{10}$ of a degree Sponging with tepid water was a comfort, and was done regularly four times in twenty-four hours The large doses of quinine given to him weakened his heart, the effects of which he did not recover from for one year He desired to say that he had used, in a number of cases, very successfully, salicylate of bismuth

Dr Angear said that it is a settled fact, that if we have a hot surface there is an internal coolness, and *vice versa*, if we have a hot surface there is an internal heat Where we contract the capillaries of the surface with cold applications, we reverse nature's operations In other words, if the surface is hot, the nerve centers are lowered, and the internal capillaries are contracted Hence, cold-water ablutions will dilate the vessels within a person, and produce contraction of the surface capillaries

Dr Randolph thought more attention is now paid to the temperature of a patient than to the pulse, and the attention to the latter is now getting to be among the lost arts, as is also the sense of auscultation in physical diagnosis

Dr G W Webster said that if the capillaries are contracted by applications of cold, a secondary effect is soon produced by reaction and dilatation of the vessels He illustrated his remarks by stating the effect produced by handling snow or ice, how an almost burning or stinging sensation is produced in the hands after reaction has fairly set in

Dr Angear said that reaction does set in, of course, but such excessively cold applications as snow or ice over a person's entire body are not resorted to in treating typhoid fever

Dr G Newkirk did not think it necessary to apply cold to reduce the temperature The warm pack produces a pleasant sensation of quiet and rest, it keeps the skin active, and in this disease we should excite the skin to action by the application of a sponge wet in tepid water

Dr R E Starkweather submitted a plan suggested by the Illinois State Board of Health of a

HOUSE TO HOUSE INSPECTION AND SANITARY SURVEY,

which in the State outside of Chicago will cover 336,000 houses

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SUFFOLK DISTRICT MEDICAL SOCIETY.

ALBERT N BLODGETT, M D , SECRETARY

SECTION FOR CLINICAL MEDICINE PATHOLOGY AND HYGIENE

January 14, 1885 The meeting called to order at eight o'clock by Dr R T Edes, Chairman The records of the last meeting were read and approved

The first business of the meeting being the election of Chairman for the ensuing year, Dr Robert T Edes, the present Chairman, was unanimously re-elected Dr Edes, in accepting the office for a second term, thanked the section for this mark of their esteem

The paper of the evening was by Dr B O Kinnear, entitled,

CHOLERA, AND ITS TREATMENT BY DR JOHN CHAPMAN'S METHOD, WITH TWELVE CASES

The author began with an account of Claude Bernard's well-known experiments with sections of the pneumogastric and galvanization of the peripheral extremity, showing the vaso motor function of that nerve The view that the glands are supplied with trophic nerves from the spinal axis, as well as with vaso-motor veins from the sympathetic, was advanced, and it was claimed that excessive glandular action was caused by hyperæmia of the cerebro-spinal trophic centers

The writer then went on to present the views of Dr John Chapman on the nature and treatment of cholera based on the theory that this disease is "due to a superabundance of blood in, and excessively preternatural activity of, both the spinal cord and sympathetic centers," the former causing the active phenomena, and the latter the passive or negative ones The symptoms of cholera were then enumerated and classified into one or other of these two groups

The latter group included the symptoms of the algid stage, as being due to vaso-motor hyperæmia Dr Chapman, considering cholera as entirely of nervous origin, assigned as its causes solar heat, electricity, violent changes in temperature, lowness of site, prolonged marches, fear, and the effects of alcohol and opium on the nervous system The non-contagious nature of the disease was then shown, and was held to be a proof that the cause was no toxic influence The teacnings of Koch regarding the comma-bacillus were objected to, and it was claimed that no micro organism was constant in, or peculiar to, this disease This portion of the paper was founded largely on an article by Dr Chapman in the *Westminster Review* for October, 1884

A series of twelve cases was then reported which were treated by means of the spinal ice-bag at l'Hôpital de la Charite, Paris, during the late epidemic, and of which only two proved fatal

Dr Robert Amory said that he had thus far never seen a case of cholera, but it seemed to him that a paper like the one of this meeting should not be allowed to pass without careful consideration and discussion From many of the statements contained in the paper one is forced to believe that both Dr Chapman and the reader are influenced by an hypothesis in regard to the causation of cholera which they endeavor to support by the theory of hyperæmia or anæmia of the cerebro-spinal or of the sympathetic nervous system The electrical power of magnets, the varying conditions of the atmosphere, and other cosmic influences and agents, are easily explainable without reference to any specific disease Again, most of the cases reported differ from cholera generally, in the fact that they came very late under treatment and at a time when patients with this disease are either dead or convalescent

According to all accounts thus far received in relation to the recent epidemic in Paris, the disease was developed only in a very mild form, and, doubtless, many cases of the simple diarrhœal character were included in the number of cases of true cholera It is also somewhat striking that in the cases reported by the reader but little is noted concerning food or medicines, or any of the ordinary edjuvants of medical treatment It would, therefore, seem that the mode of treatment here advocated is in no sense as yet worthy of being ranked above the formerly advocated and more generally employed methods of external and internal treatment No one would venture to say that the spinal and sympathetic centers may not be the seat of congestion in cholera, usually in the algid stage, but the mode of argument advanced in the paper is in no way conclusive, nor its deduction satisfactory on this point

Dr Ayer said that it had been his fortune to witness the two last epidemics of cholera that visited Boston The fear and dread—not to say panic—which the scourge inspired are fresh in my memory I treated many patients The onset of the attacks was especially violent, and its progress to a fatal termination rapid—usually within twenty-four to forty-eight hours The early symptoms were vomiting and cramps, succeeded by diarrhœa, then the algid stage, rice-water bischarges, suspension of urine, collapse, and death The patient retained his mental faculties, and could speak, but extremely hoarse to the last After the vomiting subsided the evacuations were odorless, and the sick-room cleanly

We had no distinct theory of treatment, but combatted symptoms as they arose For vomiting I employed alkaline solutions, tincture of opium, brandy, and sinapisms The diarrhœa was met by opiates and astringents, and enemata of starch and laudanum and astringents Ice was given to allay thirst and nausea From the cold stage, and almost from the beginning, hot applications, dry frictions, and hot stimulants were freely given

The disease affected the filthy localities and was specially fatal in the intemperate Ice was never used externally

Dr G N Thompson said that during the two last epidemics of cholera in Boston he was called to treat quite a number of patients suffering from that disease

He tried the various remedies and modes of treatment that were recommended for some time without satisfactory results He found from experience that the stomach rejected all liquids, whether medicinal or nutritious, in about every case

The painful cramps, rice-water discharges, vomiting, thirst most intense, and great prostration were palpable and prominent symptoms and characterized the disease, as I witnessed it from day to day There was an entire suspension of the usual secretions of the digestive organs, liver, etc There was intense pain from cramps There was great prostration from the cramps and the deranged functions of the system, and the question arose how could these various destructive conditions be met and overcome by the attending physician The stomach would not tolerate liquids of any kind in most cases

In the first place, it was important to restore the functions of the liver and the digestive organs, to relieve the cramps and pains which accompanied them, to restore and maintain the tone and vigor of the system through the trying ordeal I argued that remedies in such a form as the stomach would tolerate must be used I found that pills were retained if no liquids of any kind were taken

After some thought and reflection upon the subject, I concluded that hydrarg submur, opium and quinine were the most potent remedies we had to meet these desperate emergencies

I therefore used pills of each of the foregoing ingredients of two grains, as often as from half to an hour, alternately in rotation, varying the dose somewhat, making it larger or smaller to meet the varying symptoms Usually within from five to ten hours the patient would be relieved and the functions of the system restored. Of course it would require time to regain the former strength and vigor.

Other means, such as applications of warmth with friction by rubbing, were used in all cases to promote the comfort of the patient.

Two of the cases deserve brief mention.

Case 1. A man, aged 40 years, had previously been in good health, had a family, was taken in the afternoon, had vomiting, great thirst, cramps with much pain, profuse rice-water discharges, great prostration, could retain no fluids on the stomach.

Ordered the remedies as above suggested. Told his wife to give him no liquids of any kind, and to give the pills as directed, if she wished her husband to live. This was said to enforce directions.

Called in the morning and found the patient relieved from all his grave symptoms. Two others had been taken with the disease during the night. One of them was in the last stages of the disease, and soon breathed his last. The other recovered under treatment.

Time was lost in the night by sending for the priest instead of for the physician.

Case 2. A man about 45 years old, usually enjoying good health, was attacked late in the afternoon. The late Dr. Gould, an eminent member of the profession in the city, was called in attendance. He was with him till past midnight. A member of his family being unwell, he sent for me to take charge of the case. The symptoms were very grave. I immediately gave him the pills, as I have stated in the previous case. He was relieved of his painful symptoms by morning, and recovered.

The next day, meeting Dr. Gould, he wished to know when the patient died. I informed him that the man was recovering. On his inquiring, I told him what course I had pursued. He expressed much surprise at the result.

In almost all cases of intemperate habits the chances of saving the patient were very slight. As I saw the disease, it was very violent and rapid in its progress, and liable to prove fatal in from twenty-four to forty-eight hours in many cases.

In the twelve cases treated by Dr. John Chapman's method, in Paris, in the paper read by Dr. Kinnear, some of them were not brought to the hospital until two or three days after the disease had commenced. I feel confident, therefore that the epidemic there was far less malignant and rapid in its progress than it was here, as early, prompt treatment of the disease, as it prevailed here, afforded nearly or quite the only chance of saving life.

Dr. R. M. Hodges stated that from a considerable experience in two epidemics of cholera which have appeared in this city, he is convinced of the truth of the assertion made by Dr. Amory, that the disease as it had prevailed in France during the last five months does not represent the average severity of cholera. At the times when the disease was present in Boston, Dr. Hodges was accustomed to a much more rapid progress of symptoms and a much earlier termination of the case, in the recovery or death of the patient, than is indicated. The cases described in the paper certainly present a duration of disease quite inconsistent with any preconceived opinions of cholera, which has generally the characteristics of extreme rapidity of succession in symptons and speedy collapse or the commencement of convalescence. During the prevalence of any epidemic disease there are, doubtless, large numbers of cases wrongly included among its victims from errors in diagnosis, by which some other form of illness is mistaken for the dreaded epidemic disorder. In the presence of actual cholera there are usually many cases of a similar but milder disease, which are called "cholerine." The feeling of anxiety during an epidemic also, no doubt, causes an appearance of increased gravity in many cases which would not be considered to be of a serious nature at other times. Another important point in relation to the cases reported in the paper which forms the subject of discussion is the statement that one case of cholera was cured by the treatment described, but the patient soon afterward died from some other independent cause. A large number of cases of cholera yield to the immediate treatment, but succumb later to the secondary fever, which is a recognized feature in the convalescence of cholera. An ardent follower of any special mode of treatment may be deceived by the enthusiasm with which he is inspired, and the stronger conviction of an enthusiast is liable to lead to a more positive judgment than the facts warrant. It is not easy to know what to say in regard to cholera, because very little absolute knowledge exists upon this disease. The recent investigations of renowned scientific men, extending over several epidemics and culminating in the discovery of a coincident, if not a causative, bacillary organism, have not aided the therapeutics of this disease. Dr. Hodges stated that he enjoyed especial opportunities for studying the disease at two separate periods: first as resident officer in the cholera hospital established on Fort Hill in Boston during the epidemic of 1856, and again as physician to the same hospital during the last visitation of cholera in Boston. He could not say that during these epidemics anything material was learned in regard to the successful treatment of the disease.

The employment of intravenous saline injections is neither new nor recent. This method was advocated many years ago in India. It was employed in the treatment of cholera here during the periods above mentioned, but in only one instant was there apparent benefit from this procedure. This fortunate patient was retained for some time in the hospital as a therapeutical curiosity, but finally ran away. Within twenty-four hours he was brought back again sick, and in a few hours was dead from cholera.

Dr. Blodgett spoke of the recent epidemic in Paris, of which he had gained some knowledge by personal experience. The disease was certainly there regarded as of very mild type, and the rate of mortality was exceptionally low. The patients were almost entirely from the lowest, most improvident and dissipated classes, and were considered to be especially vulnerable to any unwholesome influence.

The same error in diagnosis by which cases resembling cholera to a greater or less degree were mistaken for it was also noticeable in this epidemic, in which cases of so called "cholerine" were reported, as well as cases of undisputed cholera All the more common methods of treatment were employed, but the subsidence and final disappearance of the disease is associated with the occurrence of lower temperature and especially with the advent of frost So far as it is possible to judge, the knowledge of the disease or of its successful treatment has not been materially advanced by the opportunities for observation and research in clinical and pathological directions afforded by the limited epidemic just ended

Dr Edes said that there were too many steps between the application of ice to the back and the cessation of vomiting to enable us to speak so accurately as to what goes on in the spinal cord and ganglia, and assume that these are the paths of influence It has been pretty conclusively shown that cold to the head does not cool the blood in the brain, and the spinal or sympathetic cord is even further from the surface

The tendency to formulate attractive theories of treatment in very obscure diseases is always liable to lead to erroneous deductions, and all investigations of this character should be conducted with more freedom of judgment and absence of prejudice than an enthusiastic advocate of a new idea is liable to possess

STATE MEDICINE

SANITARY COUNCIL OF THE MISSISSIPPI VALLEY.

The Sanitary Council of the Mississippi Valley convened Tuesday noon, March 10, at the office of the State Board of Health, in New Orleans The meeting was called to order by Dr Joseph Holt, President of the Louisiana State Board of Health, who delivered the following

ADDDESS OF WELCOME

Gentlemen, the delegates of the Sanitary Council of the Mississippi Valley —With unfeigned pleasure the Board of Health of the State of Louisiana welcome you, not only to our state and city, but to the enjoyment of our most cordial hospitality here in the office of the board itself, begging you to make this your rendezvous, where each one will find himself in a new house but among old friends The Board of Health of the State of Louisiana recognizes not only its membership in this family council, but is sensible of the singularly important position it occupies, and of the responsibility resting upon it in its office as janitor of the gateway of the Valley of the Mississippi Holding the most important outpost, perhaps, on this continent, our responsibilities are not limited to the protection of New Orleans and Louisiana, but we hold also in trust the safety of the millions of people inhabiting the interior

Holding the keys as janitor at the gateway of the great valley of the Mississippi, Louisiana is compelled by every obligation to recognize the importance of her trust She can no longer bolt and double bar these doors six months out of the twelve with an antiquated quarantine of detention, when it is optional, through a scientific sanitation, to fling open the entry of this national highway, this inland sea, to the unobstructed ingress and egress of all who may apply

The interior states of this continent have a natural right in every question touching the navigation of the Mississippi, from its headquarters to the Gulf They have a right to free pasturage in the commercial fields beyond This claim is supreme, and one we must heartily allow We recognize other questions of right in this matter Occupying the delta of the Mississippi, and therefore exceptionally exposed, it is, in our opinion, neither equitable nor proper that Louisiana should bear the entire brunt of expenditure in fending from our shores an invading fleet or an invading pestilence As we are by no means the only ones who enjoy the security of life, the peaceful occupancy of our homes and fruition of our labors by the successful repelling of such invasions, it is only fair that all concerned should alike contribute their own proportion of expense It follows, therefore, that we have a right to call upon the National Government to set aside as an emergency fund an ample appropriation of money to be used in warring against these common enemies, yellow fever and cholera

THE DELEGATES PRESENT WERE

Pinckney Thompson, M D , of Henderson, Ky , G C Ashmen, M D , of Cleveland, O R C Kedzie, M D , Lansing, Mich , Henry F Lyster, M D , of Detroit, Mich , W A Haskell, M D , of Illinois , R Martin, M D , of Milwaukee, Wis , Wm R Mackenzie, M D , of Illinois , Daniel F Wright, M D , of Tennessee , Howard P Brisbane, M D , of Mississippi , Junius H Hall, M D , of Chicago , K Hoyt, M D , of Wisconsin , L D Wilson, M D , of West Virginia , L C Carr, M D , of Ohio , C W Rowland, of Cincinnati , Edward Orton, State Geologist of Ohio , James E Cowan, of Galesburg, Ill , B T Buckley, M D , of Illinois , J L Million, M D , of Illinois , Edward Fenner, of New Orleans , A W Cantwell, M D , of Iowa , S S Herrick, M D , of Louisiana , A C Rhodes, M D , Medical Inspector, U S Navy , David P Haddan, M D , of Memphis , John H Rauch, M D , of Illinois , D W Hand, M D , of St Paul , Ralph E Starkweather, M D , of Chicago , W S Roberteon, M D , of Iowa , D C Holliday, M D , of New Orleans , S E Chaille, M D , of New Orleans , W H Watkins, M D , of New Orleans , T H Ryan and Dr G Devron, of New Orleans , A N Kimbrough, of Danville, Va

Col D P Hadden, of Memphis, President of the Council, took the chair, and addressed the meeting on the subject of the conference about to be held, and its importance from a sanitary point of view

The minutes of the last meeting, held at Mempis, in March, 1884, were read by Dr Starkweather, of Chicago, and approved

On motion of Dr Rauch all the delegates present, not members of the Council, were elected The Board of Health of Clarksville, Tenn , was recognized as a member of the association the system restored Of course it would require time to regain the former strength and vigor

Other means, such as applications of warmth with friction by rubbing, were used in all cases to promote the comfort of the patient

Two of the cases deserve brief mention

Case 1 A man, aged 40 years, had previously been in good health, had a family, was taken in the afternoon, had vomiting, great thirst, cramps with much pain, profuse rice-water discharges, great prostration, could retain no fluids on the stomach

Ordered the remedies as above suggested Told his wife to give him no liquids of any kind, and to give the pills as directed, if she wished her husband to live This was said to enforce directions

Called in the morning and found the patient relieved from all his grave symptoms Two others had been taken with the disease during the night One of them was in the last stages of the disease, and soon breathed his last The other recovered under treatment

Time was lost in the night by sending for the priest instead of for the physician

Case 2 A man about 45 years old, usually enjoying good health, was attacked late in the afternoon The late Dr Gould, an eminent member of the profession in the city, was called in attendance He was with him till past midnight A member of his family being unwell, he sent for me to take charge of the case The symptoms were very grave I immediately gave him the pills, as I have stated in the previous case He was relieved of his painful symptoms by morning, and recovered

The next day, meeting Dr Gould, he wished to know when the patient died I informed him that the man was recovering On his inquiring, I told him what course I had pursued He expressed much surprise at the result

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Dr John H Rauch, of Illinois, Secretary and Treasurer, submitted the

ANNUAL REPORT OF THE SECRETARY

It is a subject for congratulation that, during the interm since the last annual meeting of the Council, there has been nothing in the public health conditions of the valley necessitating action on the part of the executive committee, or any of the officers The year has been a satisfactory one, in that it has been characterized by freedom from excitement or alarm with reference to the actual existence or threatening of the class of epidemic diseases with which the Council is specially concerned It is true that the extension of Asiatic cholera from Egypt to southern Europe, and its probable introduction into this country, awakened some apprehension during the summer and fall, and, as the members of the Council are aware, representatives of the State Boards of Health, and of municipal health organizations of the United States and Canada, together with the quarantine officers of many ports, assembled in conference upon this subject during the month of October in the city of St Louis, and again at the national capital in December The action taken at these conferences has already been fully published in the public press and in the various medical and sanitary periodicals, so that the members are doubtless familiar with the matter, and it is only necessary here to allude to it Following the line of action hitherto pursued by the Council—that is, to be prepared for emergencies and to have a definite plan decided upon in advance—I have to suggest that a committee be appointed to formulate, and report at this meeting, the measures which should be adopted and carried out by the Council in the event that action becomes necessary through the appearance of Asiatic cholera at any point in the valley

The measures to be enforced in such case would include (1) a prompt notification of the outbreak, (2) the local treatment of the outbreak, (3) supervision of travel from the infected points

Concerning the first of these there is little new to be said, but I think it desirable that specific instructions be prepared with reference to the local treatment of an outbreak, including the duties of the health authorities, the provision of hospital facilities, and if accommodations for those removed from infected buildings or localities, the action concerning water supply, the subject of disinfection and disinfectants, the care of water closets and privies, especially those belonging to public building, hotels, schools, factories, workshops, railway stations, etc, the daily personal examination of those living in the vicinity of a cholera case, and the prompt treatment of diarrhœa, cholerine or other suspicious symptoms among such, the securing of early reports of cases by the attending physician, and other details

In my judgment also a cholera outbreak would demand an extension of the system of sanitary extension and supervision to travel by rail as fully at least as the system has hitherto been applied to travel by water with reference to yellow fever Owing to the mode of the diffusion of the cholera poison, and the greater magnitude of railway travel as compared with that by river, this is a matter of much importance All cases of diarhœa or looseness of the bowels, among travelers, should be carefully and continuously watched, and the dejections be thoroughly disinfected Water closets and privies at railway stations should receive strict attention, and it is highly desirable that the closets on passenger coaches should be so arranged as that every dejection may be disinfected before discharging it on the ground, to be possibly washed into a water supply or to effect workmen on the track, etc, and thus extend the disease

No train or boat should be allowed to proceed without being properly supplied with disinfectants, and the ordinary cholera or diarrhœa remedies, with plain specific directions for their use, and for the care and treatment of a cholera patient until a physician can be procured It has also been suggested that the Council would do well to issue instructions to the public similar to its address on general sanitation in 1879, to be published in the newspapers and otherwise, respecting the measures, both public and personal, which should be adopted to prevent cholera, and also to limit its ravages if once introduced It is urged that such advice from the Council would be heeded and do good I would also suggest that a communication be addressed to the chairman of the Committee on Disinfectants, appointed at the last meeting of the American Health Association, requesting that a plain, practical paper on disinfection and disinfectants, for popular use and distribution, be furnished to the executive committee of the Council, and that the committee be instructed to procure its immediate and widespread publication

It is taken for granted that there will be entire harmony of action and the fullest cooperation possible between the various organizations represented in the Council The Illinois State Board of Health is pushing a sanitary survey of the entire state, embracing a house-to house inspection, which in the state, outside of Chicago, will cover 330,000 houses This is supplementing the work begun last July and continued until cold weather It is hoped that by the middle of May this inspection will be finished and the sanitary defects thereby disclosed will have been remedied, nuisances abated, and the whole state put in the best possible condition to resist cholera, yellow fever and all other epidemics A contingency appropriation of $85,000 has been asked for from the General Assembly now in session, to be used in quarantining, inspecting, disinfecting, caring for cases of epidemic and contagious diseases, etc, at twenty-four different points of entrance of important railroad lines along the eastern and southern boundary of the state, and at the necessary points on the Ohio and Mississippi rivers, as well as for defraying the expense of the necessary measures for preventing the spread of such diseases from point to point within the state, should they or any of them be introduced

These two measures—the sanitary survey and the state quarantine—will, if successfully carried out, render Illinois practically independent of outside assistance or cooperation Therefore it is conceived that the delegate representing that State Board of

Health may, without offense, urge upon other representatives in the Council the necessity of such action as will insure the greatest measure of protection to the public health of the entire valley. Her commercial interests, her geographical relations, and her position as the great entrepot and distributing points for immigrants to all parts of the valley, make the health conditions of every part of the country, from the St. Lawrence to the Rio Grande, matters of supreme importance to Illinois. While protecting her own borders she is ready and willing to aid and cooperate with others, and to do, at least, her full share in protecting the health of the valley. And, as already intimated, it is believed that such protection requires the formulation of a definite plan of action for the Council in the event that Asiatic cholera makes its appearance in the country; popular instruction and information concerning the measures which should be at once instituted in order to prevent such introduction, or to limit its spread; the vigorous prosecution of these measures as soon and as long as the weather will permit; and guarantees from the representatives here present of concert of action and mutual cooperation on the part of their respective organizations, so as to inspire public confidence in the work of the Council and of health authorities everywhere throughout the valley.

Such confidence is one of the most valuable features in preventing an epidemic, especially a cholera epidemic, toward which fear is one of the most important predisposing causes. As to the possible advent of yellow fever, I do not see that anything special need be said. What can be done has been already demonstrated, and the prospect of successfully dealing with this subject in the future is certainly as encouraging now as at any previous time. With the various state and local organizations cooperating in good faith, the protection of the public health in the valley would seem fairly well assured—either against the introduction of foreign pestilences on the one hand, or by limiting their spread on the other.

DR. PINCKNEY THOMPSON, President of the Kentucky Board of Health, offered the following resolution:

Resolved, That DRS. KEDZIE, HOLT, CHAILLE, RAUCH and the PRESIDENT be appointed a

COMMITTEE TO FORMULATE A SYSTEM OF CO-OPERATION

of the states represented in this Council to prevent the introduction of yellow fever or cholera into the Mississippi Valley, and also a plan of cooperation should either of these once gain admission to the Mississippi Valley. Adopted.

DR. RAUCH moved that the representatives of the boards of health, members of the Council, submit statements of the measures being adopted in their several localities, and the sanitary conditions prevailing. Adopted.

The meeting then adjourned to noon, Wednesday.

WEDNESDAY, MARCH 11—SECOND DAY.

The President, COL. D. P. HADDEN, in the chair.

The Council met at noon in the office of the Board of Health. The first business in order was the report of the special committee appointed on Tuesday to formulate a plan of concerted action to prevent the introduction and spread of

CHOLERA AND YELLOW FEVER IN THE VALLEY,

which was read by Dr. Kedzie, the Chairman. The report was as follows:

The ever-recurring danger of an irruption of yellow fever, and the imminent danger of an incursion of Asiatic cholera from European ports, cause all eyes to turn with solicitude to the gateway of the Mississippi. New Orleans is the Thermopylæ of the Mississippi Valley. Defect here means disaster to the imperial region drained by the Father of Waters. If sanitarians gallantly "hold the pass," all is secure beyond. The quarantine of simple detention has so far passed away that it now requires a mental effort to realize that it means forty days. Detention by itself is neither preventive nor curative. It is of service mainly for two objects:

1. Observation—to await the development of concealed germs of contagious diseases. 2. For the cleansing, disinfection, and sanitary treatment of ship, cargo and passengers.

The treatment to be given a ship arriving from a foreign port will depend, in a large degree, upon its previous history, as well as its present condition. The incubative period of cholera is sometimes so prolonged, and what at first appears as diarrhœa, may develop finally into true cholera, that it is important to know whether a ship comes from a port where cholera prevails, before final decision is made in regard to danger from this disease. It becomes, therefore, a matter of great importance that health officers shall receive early and full information of the existence of epidemic disease, such as yellow fever, cholera and small-pox in the foreign ports in commercial relations with this country. In order to secure such information, the Sanitary Council of the Mississippi Valley, through its President and Secretary, earnestly petitions the Hon. Secretary of State, that he cause the consuls and consular agents of all ports from which ships clear for the United States to furnish, not only the usual information embraced in bills of health, but all particulars in regard to the existence of contagious, infectious, or epidemic diseases which may endanger the public health by importation by importation by vessels reaching our shores. "The best method of quarantine should begin its work at the port of departure, and completed at the port of entry, to include improved methods of ship sanitation, under competent authority, pending the voyage of a vessel from one port to another. The hazards of importation of infectious diseases would certainly be immensely reduced if there could be a guaranty that all vessels loading in foreign countries for ports in the United States are thoroughly cleansed, and freed from infection before receiving their cargoes. Such a system of international sanitation, by preventing the shipments and exportation of disease, would insure safety and prompt commerce." The Sanitary Council regards the exclusion of all vessels unmistakably infected with cholera or yellow fever from the Mississippi River as vital to the safety of the Western South and the Northwest The Sanitary Council, therefore, through its President and Secretary, petitions the Hon Secretary of the Treasury to place a revenue cutter at the mouth of the Mississippi River to prevent the entrance of all such infected ships, and to send them to Ship Island or other refuge stations for quarantine and purification

If, however, an infected vessel or one suspected to be infected, enters the Mississippi river, the State Board of Health of Louisiana shall remand such vessels to a station of detention and absolute isolation until all danger of the spread of the disease by ship, cargo, crew and passengers has been entirely removed and disinfected, the cargo to be disinfected, the baggage thoroughly disinfected, and the crew and passengers kept under observation until free from all suspicion of danger to the public health

EMERGENCY FUND

The Sanitary Council is gratified to learn that Congress has appropriated a sum of money to be placed in the hands of the President of the United States, to be used in his discretion, in aid of the local boards of health in the event of an actual or threatened epidemic of cholera or yellow fever, in preventing the introduction and spread of the same, and in maintaining inspections and quarantine at points of danger Asiatic cholera threatens an incursion into the United States in the near future, and realizing the vast importance of such preventitive measures and adequate preparations for effective quarantine before the event of foreign pestilences, so that they shall not come upon us defenseless and unprepared, the Sanitary Council respectfully but earnestly petitions the President of the United States to immediately place the emergency epidemic fund in the hands of the National Board of Health to be used in aid of state and local boards of health in preventing the introduction and spread of cholera and yellow fever in the expectation that an adequate portion of this fund (not less than $50,000) shall be placed at the disposal of the State Board of health of Louisana, to hold this gateway of the South and West

EPIDEMIC OUTBREAK

In the event of an epidemic of cholera or yellow fever the first consideration of concert of action among health officers is confidence This can be secured only by early, full and free information of all the essential facts at points of outbreak To secure such information

Be it resolved, That each and every health organization, represented in this Sanitary Council pledge itself to promptly furnish to each other all information in regard to the appearance of cholera and yellow fever or suspicious cases of yellow fever or cholera We recommend that for the purpose indicated in the above resolution the following groups of symptoms shall be considered to indicate yellow fever and suspicious cases

I The following shall be considered as

SYMPTOMS INDICATING YELLOW FEVER

Group 1 —A person after a sudden attack has fever of one paroxysm, attended with marked congestion or blood stasis of capillaries of surface, conjunctive and gums, with a history of probable exposure to infection, and no history of a previous attack of yellow fever

Group 2,—A person after a sudden attack has a fever of one paroxysm, followed by unusual prostration, albuminous urine, yellowness of conjuntive or skin, and having no positively authenticated history of previous attack of yellow fever

Group 3 —A person has a fever of one paroxysm, albuminous urine, black vomit, suppression of urine, general hemorrhagic tendency under circumstances where exposore to infection is a possibility

II Suspicious cases of yellow fever —The following symptoms associated with a fever of one paroxysm in a patient who has apparently been exposed to infections, and has never had yellow fever, shall be held to justify in either of the six following cases a suspicion of this disease, viz 1 Suddenness of attack either with violent pain in the head or back, injected eyes and face, or with marked congestion of the superficial capillaries 2 Want of that correlation between pulse and temperature usual to other forms of fever 3 Albuminous urine 4 Black vomit 5 General hemorrhagic tendency 6 Yellowness of the skin

The following cases shall also be deemed suspicious 7 Any case respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever 8 Any case respecting which effort are made to conceal its existence, full history and true nature

In the event of death of a suspicious case a *post mortem* examination should be made when practicable Both before and after death, yellow fever is specially and pre eminently characterized by the fact that it is *par excellence* a hemorrhagic, fever, marked by capillary congestion and its sequelæ, hence *post mortem* evidence of a general hemorrhagic tendency in internal organs, especially in the digestive, in preference to the urinary tract, shall be held to confirm the suspicion

SUSPICIOUS CASES OF ASIATIC CHOLERA

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Proposition 1 Every captain or commanding officer shall keep in a book of permanent record the sanitary history of his steamboat Such captain or commanding officer, before leaving a seaport city or town, shall obtain a certificate from a medical inspector, which certificate shall be entered upon and form a part of said record, certifying that he has personally examined the steamboat, and that all the rules and regulations adopted by this Council relating to the cleansing and disinfection while at the docks and wharves of such city or town have been complied with Said certificate shall also state that the cargo of freight, of whatever description, is in good sanitary condition, and may be safely transported to its point of destination

Proposition 2 The captain or commanding officer shall daily enter upon this record all facts relating to the health of the passengers and crew, and the amount and kind of sanitary cleansing during the passage, and such captain or commanding officer shall verify by affidavit, at the time of inspection, the correctness of the daily record

Proposition 3 The reinspection of said boat shall be required only at the point of destination (except as hereinafter provided), at which point the medical inspector shall examine, before she discharges her cargo, the sanitary record of the boat and the boat itself If such record has been neglected and the boat is in a bad sanitary condition, the medical inspector shall require proper sanitary cleansing and disinfection before the cargo is discharged or a new cargo is put on board On the return passage the same rules apply

Proposition 4 All boats navigating the Mississippi river shall undergo inspection and reinspection, in the same manner as above provided, upon arrival of New Orleans, Vicksburg, Memphis, Cairo, St Louis and the point of destination Boats navigating the Ohio river shall undergo a like inspection and reinspection at Evansville, Louisville and Cincinnati

Proposition 5 Whenever cholera or yellow fever prevails at any of the gulf ports, the medical inspector shall certify on the record the precautions that have been taken and the danger to be apprehended from cargo, passengers and crew The reinspection must be made at least one mile from a town, at a point suitable for the care of the sick, detention of the well, and the disinfection and cleansing of cargo and boat

Proposition 6 The foregoing rules and regulations shall also apply to tugs, tows and barges

Proposition 7 River craft found infected, or suspected of infection, shall be promptly isolated and cared for at the nearest quarantine and refuge station, of which an adequate number shall be provided for on the Mississippi river and its chief tributaries

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Proposition 1 Whenever a railroad train departs from an infected section, no person with cholera or yellow fever shall be allowed to take passage on such train The baggage from such infected station shall be thoroughly disinfected before leaving such railroad station, by the use of the bichloride of mercury At a point not less than fifty nor more than seventy-five miles from the point of departure from an infected place there shall be an entire transfer of passengers and baggage to another train of cars, which train shall never enter an infested district This transfer shall be made under the supervision of a medical officer No person with cholera or yellow fever shall be allowed on this train, but shall be returned to the point of departure, or be treated in hospital at the place of transfer

Your committee further recommends that a special committee of three on general sanitation, and the details of precautionary measures for the prevention of epidemic disease, and especially of Asiatic cholera, be appointed by the Sanitary council, with power to punish in behalf of the Sanitary Council

The report was adopted without discussion

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The following resolution was adopted

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Dr Thompson offered a motion State Boards of Health connected with the Council suggest to the President of the United States the manner in which money appropriated by Congress for sanitary purposes should be disposed of The motion was adopted

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In accordance with the notification on Tuesday, the presidents of the boards of health were called upon to give an account of the sanitary condition of their respective localities, and the measures being taken

Dr Joseph Holt described the conditions prevailing in New Orleans, where no contagious diseases exist at present, the public health being excellent He explained the new system of quarantine to be adopted—that of thorough sanitation of ships

Dr Devron, of the City Council, made a statement of the attitude of the city authorities toward municipal sanitation He said the Council would unmistakably infected with cholera or yellow fever from the Mississippi River as vital to the safety of the Western South and the Northwest The Sanitary Council, therefore, through its President and Secretary, petitions the Hon Secretary of the Treasury to place a revenue cutter at the mouth of the Mississippi River to prevent the entrance of all such infected ships, and to send them to Ship Island or other refuge stations for quarantine and purification

If, however, an infected vessel or one suspected to be infected, enters the Mississippi river, the State Board of Health of Louisiana shall remand such vessels to a station of detention and absolute isolation until all danger of the spread of the disease by ship, cargo, crew and passengers has been entirely removed and disinfected, the cargo to be disinfected, the baggage thoroughly disinfected, and the crew and passengers kept under observation until free from all suspicion of danger to the public health

EMERGENCY FUND

The Sanitary Council is gratified to learn that Congress has appropriated a sum of money to be placed in the hands of the President of the United States, to be used in his discretion, in aid of the local boards of health in the event of an actual or threatened epidemic of cholera or yellow fever, in preventing the introduction and spread of the same, and in maintaining inspections and quarantine at points of danger Asiatic cholera threatens an incursion into the United States in the near future, and realizing the vast importance of such preventitive measures and adequate preparations for effective quarantine before the event of foreign pestilences, so that they shall not come upon us defenseless and unprepared, the Sanitary Council respectfully but earnestly petitions the President of the United States to immediately place the emergency epidemic fund in the hands of the National Board of Health to be used in aid of state and local boards of health in preventing the introduction and spread of cholera and yellow fever in the expectation that an adequate portion of this fund (not less than $50,000) shall be placed at the disposal of the State Board of health of Louisana, to hold this gateway of the South and West

EPIDEMIC OUTBREAK

In the event of an epidemic of cholera or yellow fever the first consideration of concert of action among health officers is confidence This can be secured only by early full and free information of all the essential facts at points of outbreak To secure such information

Be it resolved, That each and every health organization, represented in this Sanitary Council pledge itself to promptly furnish to each other all information in regard to the appearance of cholera and yellow fever or suspicious cases of yellow fever or cholera We recommend that for the purpose indicated in the above resolution the following groups of symptoms shall be considered to indicate yellow fever and suspicious cases

I The following shall be considered as

SYMPTOMS INDICATING YELLOW FEVER

Group 1 —A person after a sudden attack has fever of one paroxysm, attended with marked congestion or blood stasis of capillaries of surface, conjunctive and gums, with a history of probable exposure to infection, and no history of a previous attack of yellow fever

Group 2,—A person after a sudden attack has a fever of one paroxysm, followed by unusual prostration, albuminous urine, yellowness of conjuntivæ or skin, and having no positively authenticated history of previous attack of yellow fever

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Dr Devron, of the City Council, made a statement of the attitude of the city authorities toward municipal sanitation He said the Council would work in harmony with the Board of Health. The revenues of the city were limited by law and there was so much to be looked after that a very small margin was left for improvements. The city had 62 miles of levees, 21 miles of drainage canals, 600 miles of streets, 100 being dirt streets to be attended to. Last year $90 000 was spent on the levees and $50 000 on drainage. In case of an epidemic an emergency fund would be provided.

DR. JOHN H RAUCH of Illinois said that the most important work going on in that state was a sanitary survey of all the cities and towns with the anticipation of establishing the best sanitary conditions. The mode of inspection was described. The Legislature of Illinois has been asked to appropriate $85 000 to prevent the introduction of yellow fever and cholera. The first thing to be done he said was to clean up the state.

DR. HENRY F LYSTER of Michigan gave an account of what was being done there to prevent the introduction of cholera. The State Board had distributed a great number of documents intending to educate the people in sanitary subjects and teach the value of cleanness. Yearly sanitary conventions were held in the state which proved very efficient in educating the people. The speaker contended that the local boards in the Mississippi Valley should make sanitary surveys of their cities and towns which would prove of great value to the council. He advised the thorough dissemination of information on sanitation and the necessity for the education of the people in the elements of public and individual hygiene.

DR. D W HAND of the Minnesota Board of Health set before the meeting the measures being adopted in his State to preserve public health and prevent the introduction of epidemic diseases. The Legislature had shown a disposition to adopt the suggestions of the board and had passed a number of valuable sanitary laws at the last session and appropriated $15 000.

DR. PINCKNEY THOMPSON, of the Kentucky State Board said the board did not receive much encouragement from the Legislature but had been enabled to accomplish much good by the publishing and distribution of information and the holding of sanitary conventions. Dr Thompson also gave some illustrations of the efficiency of vaccination. He furnished a description of the precautionary measures taken to prevent the introduction of cholera.

DR DANIEL F WRIGHT of the Tennessee State Board said that little money or power was given to that body but they managed to do some good nevertheless especially in popularizing vaccination. In respect to cholera the Board had issued circulars treating of public and private prophylaxis. The amount appropriated to the Board annually was $3,000.

MR. ROLAND Health Officer of Cincinnati attributed the lack of a state board in Ohio to want of agreement among members of the profession which disagreement was reflected in the legislature. The local boards were invested with ample authority. He described the house to house inspection and the cleaning measures adopted in Cincinnati. He urged that the removal of garbage should not be done by the Department of Public Works but by the Board of Health. He considered that the sanitary condition of Cincinnati would be excellent in a few months.

DR. HEWITT of the Minnesota State Board stated that the legislature had *appropriated money for use* in case of epidemic. The Board had taken measures to educate the people on sanitary topics, and would be prepared to meet an invasion of cholera.

DR. PINCKNEY THOMPSON of Kentucky, offered the following resolution which was adopted:

Inasmuch as Asiatic cholera invaded France in 1884 and the United States has heretofore invariably been invaded subsequently to an invasion of Western Europe, and inasmuch as a wise people should be prepared to look danger in the face and to strive to overcome it,

Resolved That all boards of health, sanitary authorities and societies should at once resort to all possible means to give the widest publicity to information calculated to enable communities and individuals to protect themselves from invasion of cholera, and from all those causes which tend to spread the disease after it has been introduced.

At the evening session the Council elected the following

OFFICERS FOR THE ENSUING YEAR.

Dr Pinckney Thompson of Henderson, Kentucky President; Dr Joseph Holt, of Louisiana Vice-President; Dr J H Rauch of Illinois Secretary; Dr W H Watkins of New Orleans Assistant Secretary.

The Council then adjourned *sine die*.

LOCAL SANITARY SOCIETIES

EDITOR OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

DEAR SIR —We are a committee appointed at the late meeting of the "Ohio State Sanitary Association (held Feb 6 1885) to urge upon the counties, towns and villages of our state the great desirability of *local Sanitary Societies*, auxiliary to the State Association. We believe that such local societies can do a grand work if they will avail themselves of the recorded experience of sanitary science in preventing or ameliorating numerous diseases and in this way adding to the sum of human health and happiness. We respectfully beg space in your paper to press on your readers the vital interests involved in this new Gospel of Humanity.

WHO SHOULD BE WILLING TO JOIN AND TO OPERATE SUCH A SOCIETY AND WHY?

All *Clergymen* should be active in such a cause for they well know that physical and moral uncleanliness are inseparable—that "Cleanliness is akin to Godliness"—that the first steps on the ladder of moral purity are clean faces, clean bodies, clean clothes, clean food, clean houses, and clean surroundings.

All *Teachers* should give it a helping hand. They are in daily communication with children of all classes and orders of society. They know how pleasant it is to teach clean, bright, healthy children, how unpleasant and offensive are the unwashed, the dirty, the squalid They know that dirt breeds sickness, that contagion is the inevitable result, that the efficiency of their school is in this way sadly obstructed, and that death clearly traceable to disobedience of sanitary laws may rob them of their best and most promising scholars

Philanthropists should be eager to spread abroad whatever tends to make their fellow-men healthier, happier, more effective workers in their allotted station in life, to mitigate the terrors of disease and death, to advance their community to a higher plane of well-being and well doing

Lawyers should interest themselves Not simply because they are citizens, but because of their peculiar relation to the making and the execution of the laws of the State Their counsel and influence are greatly needed to bring about proper and healthful sanitary legislation and to assist sanitary officers in the performance of their duties

Capitalists would be surprised to learn what good investments have been made in practical sanitary reforms Sanitary lodging houses have displaced disease-breeding and burglar sheltering slums, changing the whole aspect of a neighborhood, and have paid a good interest on the investment Sewage farms have proved profitable beyond any reasonable expectations Abattoirs have quickly superseded the old offensive slaughterhouses with good profits to the owners A wide experience, now on record, proves that capital invested in sanitary improvements pays

Business men should take an interest in sanitary reforms and in spreading a knowledge of sanitary laws They know what one epidemic may cost them in the way of loss of business and stagnation of trade Small pox, a clearly preventable disease, is said to have cost Philadelphia in one epidemic between ten and twenty millions of dollars, in *loss of business*

In 1879 the report of a single case of yellow fever in the south caused a shrinkage in the provision market, in the city of Chicago alone, of more than a million dollars within twenty four hours The present epidemic of cholera has cost Southern Europe not less than *one hundred million dollars* To take an interest in sanitary reform is therefore a clear duty as a matter of business

It is hardly necessary to add that the humane, the philanthropic, the christian *physician* should take special interest in sanitary reforms No other class of citizens can so fully realize the necessity The medical profession has ever been in advance of all matters pertaining to the health of the people and we appeal to the profession to day in special confidence

HOW SHALL SUCH SOCIETIES BE ORGANIZED?

Upon reading this circular, let some interesting party at once call a meeting of all those who are known to be in sympathy with this movement for sanitary reform, writing special invitations if necessary Organize a society with proper officers, and hold regular meetings for the purpose of mutual instruction in everything pertaining to sanitary science Read selections on appropriate topics Exhibit pictures or diagrams illustrating the truths set forth Discuss the best methods of accomplishing any given problem Write plain practical essays to be read before the society and then, if considered suitable, let them be published in the papers Let organized effort be brought to bear on city councils, on superintendents of public buildings, on municipal authorities, and on house holders and house owners, to the end that nuisances may be abated, that sources of disease may be investigated and diminished and that the necessity for pure air, good water, and healthful food may be inculcated on the whole community

This committe and the Ohio State Sanitary Association earnestly implore every community to take this action at once in view of the apprehended approach of cholera in the near future, and because of too frequent occurrence of typhoid fever, diphtheria, dysentery and other preventable *filth diseases* in our midst If, in our own persons, in our families, or among beloved friends, disease or death, due to *preventable* causes, should overwhelm us with unhappiness and grief, what answer can we make when sanitary science, pointing out the way of health, invites us to walk therein? Who will dare to say, it is the hand of the Lord that has desolated our homes, when our own ignorance, or stupidity, or carelessness is alone at fault?

It is expected that all such local organizations shall be auxiliary to the State Association for our mutual advantage It will give the State Association connection with all portions of the State, enabling reports, warnings and suggestions to be furnished regularly and promptly when necessary It will also enable the State Association to collect information from all sections as to the spread of epidemics and the general health of our people

In behalf of and in the name of the Ohio State Sanitary Association

E T NELSON, A M Ph D , Delaware, Ohio ,
D R SILVER, M D , Sidney, Ohio , and others

FOREIGN CORRESPONDENCE.

BERLIN LETTER

BERLIN, March 5, 1885

Gusserow on Puerperal Fever and Erysipelas The Coloring of Tuberculous Material for Bacilli Examination Dr Martin's Operations A New Field for Therapeutical Investigation

Dr Gusserow has recently published, in the *Archiv f, Gynak*, an interesting paper on "Erysipelas and Puerperal Fever," the main points of which are as follows The old argument of puerperal fever arising from erysipelas and *vice versa* was thoroughly discussed by Hirsch and Zuelzer, and by Hugenberger in this same journal Virchow's labors went to prove the identity of the two, especially was such true of puerperal infection of the pelvic cellular tissue and erysipelas, and that clinical observations and anatomical demonstrations do not always coincide He then gives the histories of fourteen cases of erysipelas, all of which appeared in an epidemic of puerperal fever, the number of cases suffering from the latter being very great There could be no rational inference that the erysipelas gave rise to the puerperal fever, since a study of the histories of these cases show, that there were already well marked evidences of puerperal sepsis before the characteristic erysipelatous rash appeared In the fatal cases post-mortem section showed severe forms of sepsis, though not phlegmonous, as often occurs in puerperal fever, but a real erysipelatous sepsis After these cases Dr Gusserow was convinced that there was no ground for supposing that erysipelas could give rise to puerperal fever

At that time he could not demonstrate this conclusively, but since the discovery by Fehleisen of the micrococcus of erysipelas he stood on safer ground Through the kindness of Fehleisen Dr Gusserow was able to inaugurate some experiments with pure culture The ears of two rabbits were vaccinated with minute quantities of this culture, in both cases the characteristic erysipelatous rash appeared, which in one case was especially typical The animals showed the usual symptoms and after a time the rash disappeared Six rabbits were then vaccinated as follows Two had small quantities of the Pilz (inoculating material) left free in the peritoneal cavity, into the pelvic cavity of two others, Pilz was placed upon the peritoneal surfaces which had been slightly wounded in the last two the Pilz was introduced into the subserous cellular tissue None of these animals showed any symptoms, and all lived for a long time From such experiments Prof Gusserow is driven to the conclusion that erysipelas cannot cause puerperal fever

I have found the following formula to answer remarkably well as coloring matter for tubercular bacilli Make a watery solution of anilin oil, then filter and heat, then add enough of an alcoholic solution of fuchsin (a saturated solution) to give a metallic lustre from the surface Then transfer to blue solution (sat sol of methyline-blue in 20 parts nitric acid, 30 parts alcohol and 50 parts water), letting cover glass remain in for about two minutes If in process of time the color fades it can be recolored very easily

During the last three years Dr Martin has extirpated the cancerous uterus *per vaginum* 58 times, and his assistant, Dr Durelius, 4 times Out of these 62 cases there were only five deaths, and these happened some time ago, when the operation was a comparatively new one, so that now a fatal result is very exceptional Such results are among the triumphs of modern surgery, for when the uterus is friable and breaks up so easily that the hook cannot grasp it to turn it out through the posterior incision, or when the posterior adhesions are widely distributed and intimate, the operation is an exceedingly difficult one So, too, under his method there is rarely much loss of blood during the operation, and the merits of the plan are that the bleeding-points can be easily seen and secured, and that the ligatures are so securely placed and knotted as the operation progresses, that the vessels are generally all ligated before much cutting is done In my opinion Dr Martin is the most brilliant operator here, and most original and fruitful in device His statistics are gradually creeping into the very foremost rank, and his results are unexcelled

To any one craving fame in original research, there is a wide field opening in scientific therapeusis The bacilli of most contagious diseases are already elaborated The characteristic symptomatology depends upon the peculiar excitant of the especial bacillus The intense fever which obtains in certain cases is due to the chemical changes engendered by the presence of these parasites Each bacillus sets up a line of symptoms peculiar to itself, and it cannot originate or perpetuate the pathological conditions incident to other bacilli This fact necessitates a thorough knowledge of the germicides best suited to each bacillus, so that for each disease depending upon a *contagium vivum* there shall be a distinct and accurate plan of treatment In cases in which it is necessary to saturate the system with an antiseptic and a germicide, experiment must show just what medicine can be best tolerated by the system, while acting upon such principles Such an investigation would not be impossible, but it would require months of patient work in the laboratory, and clinical observation at the bedside, before anything reliable could be deduced

H K B

DOMESTIC CORRESPONDENCE

NEW YORK LETTER.

The County Medical Association Etiology of Still-births—Dr E S Gaillard—Treatment of Patients in the Temple of Æsculapius—Bellevue Medical College and Laboratory—The University Medical School—General Grant's Case —The meeting of the County Medical Association, on the evening of March 16, was largely attended and of much interest Dr John Shrady, brother of Dr George F Shrady, Editor of the *Medical Record*, read a paper on the "Etiology of Still-births," which, while of a high order from a scientific point of view, was characterized in many places by a deliciously dry humor which is not often met with in the communications made to medical societies For example, in narrating some cases occurring in his own practice, in which syphilis was the principal etiological factor, he commenced the history of the first by saying "A A, a politician, in his zeal to provide for future majorities of his party, contracted a chancre, and with a rare generosity shared it with his wife

She had an eruption mainly rupial in character, and this salt rheum, which for family reasons we agreed to call it, was rapidly undermining her constitution " The history of another commenced as follows "E F, wife of an amateur musician, had successively two dead-born children, both small, and one putrid The husband asserted the purity of his conduct, but acknowledged that he had an abscess in the groin, which he thought was originally caused by straining after a high note on his trombone " A third began "G H with no other history of syphilis than that in early life she was a ballet girl, and her first husband a sea captain, had several miscarriages." Before dismissing the subject of syphilis, he referred to the query of the late Professor E. R. Peaslee, whether the success of ultimate maternity may not be due to the gradual wearing out of the syphilization, as manifested by the occurrence of abortions at successively longer intervals—say the third, fourth and fifth months. He said he could recall one case in point, that of a mother who, after twelve expulsions of fœti of various degrees of development, crowned her hopes in her forty-fifth year by the birth of a healthy boy. Other children might perhaps have been saved also, but for her strong opposition to the induction of premature labor. In this case chlorate of potash in 15-grain doses, in combination with tincture of the chloride of iron, was persistently employed during the last three months of pregnancy.

The discussion which followed the reading of the paper was worthy of note from the fact that it brought out a large number of speakers, whose views are seldom or never heard in our medical societies, and it thus afforded a signal illustration of the useful work which the young association is accomplishing in developing latent talent, and enabling busy but modest practitioners to contribute something from their store of experience to the general knowledge of the profession. The discussion turned largely on the question of malaria as a cause of still-births, and whether there was danger of provoking miscarriage in giving quinine freely to pregnant women. In regard to the latter point, while two or three members believed that there was undoubtedly a certain amount of such danger, and advised that when quinine was demanded it should be given in very small doses, repeated at more or less intervals, the weight of opinion seemed to be decidedly in favor of the perfect safety of administering the drug as freely to pregnant women as to any other persons. During the discussion points of special interest were referred to by the president, Dr. Leale, and Prof. E. G. Janeway. Dr. Janeway called attention to the fact that a large number of still births in New York resulted from a cause which had not been alluded to, viz.: The use of ergot by incompetent midwives. When he was one of the health commissioners of the city he had made a careful investigation of this matter, and had found that the use of ergot constituted a pretty large factor in the etiology of still births, in all cases attended by midwives. Another prominent factor was the fact that in difficult cases of labor the midwives usually waited too long before sending for skilled assistance. These matters he considered important, from the circumstance that about one-third of all the cases of confinement in the city of New York were attended by midwives.

The etiological factor to which the president called attention was chronic obesity on the part of the mother. Although the pelvic diameters were ample, there might be so much obstruction offered by the soft parts that the child could not be born alive. He had known of several such instances, and in one case he had successfully delivered the patient of a living child by resorting to the induction of premature labor. Other matters of great interest also occupied the attention of the Association, to which only a passing allusion con be here given. Prof. Charles A. Doremus, of Bellevue College, demonstrated a new and simple method of determing the quantity of urea in the urine, an advance, as Prof. A. Flint, Jr., pointed out, of the greatest practical importance. Prof. Janeway presented two unique pathological specimens. One was a case of perforating ulcer of the œsophagus, a condition which many high authorities claimed has never been seen; the other one showed the lodgment in a trachea, already stenosed by the pressure of enlarged glands, of a cheesy mass from one of the glands which had been discharged into it by means of a process of ulceration, and which caused instant death by asphyxia.

Before the association adjourned the following resolution, offered by Dr. A. Flint, Jr., was adopted:

Resolved, That in the death of our late associate, Dr. E. S. Gaillard, the profession has lost a bright ornament, medical journalism an able exponent, and a prominent object of our association—"the maintenance of the honor and character of the medical profession"—an earnest advocate and defender.

On the evening of March 19 Prof. A. G. Merriam, of Colnmbia College, delivered, by invitation, before the Academy of Medicine, an attractive and instructive lecture on "The treatment of Patients in the Temples of Æsculapius." During the course of it he spoke at length of a slab recently discovered in the excavations at the Æsculapium at Epidauris, on which are recorded in the Doric dialect a large number of miraculous cures wrought by the god on persons visiting the temple for relief from disease. Among the cases mentioned are the following: Cleo, a woman who had been *five years* pregnant, came as a suppliant for delivery. She slept in the temple a night, during which she was visited by a vision, and the next morning was safely delivered of a boy, who immediately washed himself in a neighboring fountain and began to walk about with his mother. Another woman, who was sterile, besought the god to grant that she might become pregnant. "Is there nothing else that you wish?" he asked when he appeared during a vision. "Nothing," she replied. "Well, then," he said, "you can have your desire." Accordingly, she soon became pregnant, but when she had continued in this condition for three years she began to think it was about time her child was born, and so came again to the temple. In the night the god appeared once more and asked her what she wanted; and when she told him that she wished to be delivered, he replied: "You desired before that you might become pregnant, and expressly stated that you did not wish anything more, so that you ought to be satisfied now that you are in the condition which you wished." However, the god was merciful, and she was delivered of an infant, which does not seem to have been so precocious as the one in the last case. A third history was as follows: Pandarus, a Thessalian, had certain marks on his brow which had apparently been branded there, and he came to the temple to get rid of them, if possible. Following the direction of the god he bound a fillet around his head for a specified time, and when it was removed, behold, the marks were gone! The god then told him to consecrate the fillet in the temple, which he did Some time afterwards a friend of Pandarus, who had similar marks on his forehead, having heard of the marvelous cure, also resorted to the temple at Epidauris, bringing with him a thank offering of gold to the god sent by the grateful Thessalian When the god appeared during the night he asked him if he had not brought a thank-offering from Pandarus He denied this, and the god then told him to bind on his brow the fillet of the latter, which had been left in the temple, and when he had removed it to look at himself in a certain stream Accordingly, he followed the god's directions, but when he came to take off the fillet he found upon his brow not only the original marks which had been there, but also the marks which had formerly been upon Pardarus' brow

The graduating exercises of Bellevue College, which came off March 9, at the big new Metropolitan Opera House, (this being the first college commencement of any kind ever held in that stupendous temple of art), were somewhat largely devoted to the glorification of Mr Andrew Carnegie, who recently founded the Bellevue pathological laboratory, but any man who has the good sense to give $50,000 to a medical school certainly deserves to be made much of He himself made the principal address of the evening, and both before and after it he was greeted with cheer after cheer from the graduating class and the hearty applause of the assembled multitude The college announces the early opening during the spring course, of the Carnegie Laboratory, fully equipped with scientific apparatus The teaching in it will be under the direction of Professors Janeway and Dennis, assisted by three instructors, and the Laboratories will be open to any one who desires to make original investigations, or who may wish to pursue any special line of experimental work under the direction of those connected with the college It is expected that culture apparatus, imported from Germany, will arrive in time for the cultivation of bacteria during the present session The laboratory building is five stories high, and contains three sets of laboratories, besides a large auditorium

At the commencement of the University Medical School, which was held at the Academy of Music on March 10, the Rev Dr John Hall, chancellor of the University, delivered the address to the graduating class, which numbered 178 A portion of the musical programme, which was furnished by Gilmore's band, was a lively hunting chorus, in which was introduced with very laughable effect a refrain to the words

> "As doctors on we'll go
> With physic, with physic, with physic,
> To cure 'em or to kill 'em,
> As doctors on we'll go"

Dr George F Shrady has been added to the consulting surgeons in General Grant's case, and the *Record* of March 21 states that at the last weekly consultation a thorough examination was made with a view of discussing the expediency of a radical surgical operation for the removal of the growth Such a measure was considered mechanically possible, despite the close proximity and probable involment of the tissues adjoining the larger arteries and veins in the neighborhood of the ulcerations, but in the best interests of the patient the surgeons did not feel inclined to recommend the procedure P B P

March 20, 1885

MISCELLANEOUS

THE INDEX MEDICUS.

We take pleasure in announcing that Mr George S Davis, of Detroit, has undertaken to continue the publication of the *Index Medicus*, on the same general plan, and with the same regard to typographical accuracy and finish, as heretofore

On account of the delay required to perfect this arrangement, the first number of the journal for the current year will comprise the literature of January, February and March, after which it will appear monthly, as usual

At the end of the year, in addition to the usual annual index of names, subscribers will be furnished with an index of subjects to the volume

So many expressions of regret and urgent remonstrances in regard to the threatened discontinuance of the *Index Medicus* have been received, that we think we may venture to congratulate the profession on Mr Davis' public spirited determination to carry on the enterprise in spite of the fact that, thus far, it has not been pecuniarily remunerative

It is requested that all exchanges, and books and pamphlets for notice, be sent to the *Index Medicus*, Washington, D C

JOHN S BILLINGS, M D
ROBERT FLETCHER, M D

WASHINGTON, D C, March 4, 1885

PREVENTIVE MEASURES AGAINST CHOLERA —On behalf of the executive committee of the Sanitary Council of the Mississippi Valley, Dr John H Rauch, secretary of the Illinois State Board of Health, sent a petition to President Cleveland, on March 17, to immediately convene the National Board of Health and authorize its use of so much of the epidemic contingent fund as may be necessary for preparing and promptly enforcing a vigorous system of preventive measures in cooperation with and in aid of state and local health organizations, with especial reference to Asiatic cholera

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE, FOR THE WEEK ENDING MARCH 14, 1885

Bailhache, P H, Surgeon Detached as President, Board of Examiners, March 10, 1885

Purviance, George, Surgeon, Detached as member, Board of Examiners, March 10, 1885

Austin, H W, Surgeon, Detached as recorder, Board of Examiners, March 10, 1885

—THE—

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

VOL IV CHICAGO, APRIL 4, 1885 NO 14

ORIGINAL LECTURES

RINGWORM OF THE SCALP

A Clinical Lecture, Delivered at the College of Physicians and Surgeons of Chicago

BY HENRY J REYNOLDS, M D

PROFESSOR OF DERMATOLOGY IN THE COLLEGE

GENTLEMEN,—I wish today to engage your attention while I speak of the condition known as *tinea trichophytina* Under this head are embraced what are usually described as three separate and distinct affections, viz , *tinea circinata*, or the common ringworm of the face and body, *tinea tonsurans*, or ringworm scalp, and *tinea sycosis*, or ringworm of the beard, called also *tinea barbæ*, barber's itch

They are all embraced under the head parasitic diseases, and are produced by one of the three vegetable parasites, recognized as capable of producing skin diseases, viz , the *trichophyton tonsurans*, the other two forms of vegetable growth or parasite, as they are called, giving rise to the diseases known as *tinea favosa*, or favus, and *tinea versicolor* These three forms of disease, then, while they differ in a measure, as regards their pathology and symptoms, are identical as regards their etiology, being produced by one and the same parasite, the difference in their manifestations being due entirely to the location

I have here for your inspection a case of tinea tonsurans, or the disease as it is manifested in the scalp, and will today confine my remarks entirely to that form of the disease Before examining the case, however, I think it advisable that you have a knowledge of the general characteristics of the disease The parasite, on being deposited upon the skin, finds its way beneath the horny layer, and there commences its work Soon a small reddish spot is seen When first discovered, however, these spots are generally as large as a nickel five-cent piece, and covered with fine, somewhat adherent scales They may be either multiple or single when first seen They then increase in size and number, until soon several such patches are visible here and there over the scalp, varying in size from that of a dime to an inch or two in diameter Something much more interesting as a diagnostic point, however, is generally apparent within the first few weeks of the existence of the disease, and usually when first seen by the physician, and what I now say has reference to the condition of the hairs In our examination, the first thing we observe in this respect is a thinning of the hair, or partial baldness, but, upon still closer examination, we find that the hairs are broken off near the scalp, leaving stumps from one-eighth to a quarter of an inch in length In a hasty, careless examination, these stumps of hairs may sometimes be overlooked, but by careful and close examination, I think, some of them may invariably be discovered when the patient is first seen by the physician In addition to this the hairs will be found to be dry, lustreless and brittle, and may be removed from the patch by very slight traction, either breaking off near the skin, within it, or coming out entire, though I think hairs thus diseased are more likely to break upon traction The subjective sensation is that of slight itching More rarely we find a vesicular or pustular condition, the conditions, probably, most favoring this form of lesion being moisture and irritation This disease, like all other parasitic diseases, is contagious

The history of the case is as follows The patient is 8 years of age, and has had the disease six weeks Another child, in the same house, has a similar trouble, from whom this patient, he states, caught the disease You will observe, as he passes around among you, first, several patches, from one-half to an inch and a half in diameter You will also notice that the patches are covered with dry scales, that there is a decided thinning of the hair on each patch, and by a little closer inspection you will see very distinctly short stumps of hairs here and there over the patch The patches are somewhat circular in form, and the patient gives a history of slight itching

Now, while there are several other diseases which have features in common with this, there is no other disease that gives the above combination of symptoms Perhaps the principal or only diseases which we might be called upon to exclude, in making a diagnosis, are eczema, psoriasis, favus, and seborrhœa In eczema we have greater itching, always moisture, it generally crops out on the face or ears as well, and we never get the characteristic thinning and stumps of hairs, we have more inflammation and infiltration, no history of contagion, and the patches are not so accurately defined

Psoriasis may be excluded by the absence of its characteristic white shiny scales, which on removal leave the almost pathognomonic red bleeding patch, and by the presence of the stumps of hairs which we do not have in psoriasis, and, moveover, psoriasis affects the whole body, the patches are smaller, and, when the scalp is affected, the disease almost invariably fringes the brow on the non-hairy forehead

Seborrhœa is a symmetrical affection of the scalp and never occurs in accurately defined circumscribed patches, and further, the scales are greasy, there are no stumps of hairs, etc

In favus, which is another parasitic affection, we have, as in this disease, stumps of hairs, but we have other points of difference We have in favus *crusting*, a form of lesion that is not common in tinea tonsurans Besides, these crusts have features that are almost pathognomonic of favus, and that we never meet with in tinea tonsurans, viz They are *sulphur-colored* and *cup-shaped* or umbilicated It will therefore be seen, that while from a hasty consideration of the gross features in a general way, an accurate diagnosis may seem difficult, by carefully considering the individual symptoms of each a diagnosis may be made with absolute certainty It is well to remember, however, that stumps of hairs, to say the least, are always suggestive of parasitic trouble There is still, however, another diagnostic point, to which I have not yet called attention, and which will in any case, *per se*, clear up the question, that is, the discovery of the parasite with the microscope, to which subject I will again call your attention at the close of the lecture

As regards the etiology, the disease is, of course, always the result of contagion, the propagating element being the parasite or vegetable growth known as the *trichophyton tonsurans*

As to the pathology, it is essentially a disease of the hair and hair follicles, the invasion of the hair structure by the parasite being the cause of the brittle, dry, lustreless condition of the hair, and the same condition in the root causing atrophy of the bulb, etc This brings us to the question of treatment

The disease being of parasitic origin, and the deep structures—hair follicles, etc —being involved, the treatment, in order to be effectual, must be such topical application as will be capable of destroying the parasite, and must likewise be used in such a form or way as to penetrate to the bottom of the follicles Any of the ordinary parasiticide remedies may be used, and are capable of curing the disease, provided the remedy come in contact with parasite But this is not always so easy of accomplishment, and to facilitate matters epilation, or the removal of the hairs, has been practiced, with a view to allowing the remedy to penetrate to the bottom of the follicles, and with apparent advantage in stubborn cases Among the remedies used may be mentioned the various preparations of mercury, iodine, sulphur, chrysarobin, pyrogallic acid, chloroform, ether, etc The mercury may be applied in the form of the bichloride, grs x to aqua ℥i, iodine in the tincture The hyposulphite, or the sulphite of sodium, a drachm to the ounce of water, will be found one of the best remedies In any case, before applying the remedy, the surface should be thoroughly cleansed by the free use of green soap and hot water In this case we will apply a solution of chrysarobin 15 grs to the ounce of chloroform, which should be thoroughly and frequently applied The chloroform has a tendency to dissolve sebaceous and other fatty or gummy matters away, and thereby facilitate the penetration of the remedy down into the follicles If this proportion seem to create irritation, the strength must be diminished Care should always be taken to avoid contagion through the medium of combs, towels, brushes, etc

We will now briefly refer to the discovery of the parasite with the microscope I now take from the patient's head, as you see, one of these stumps of hairs and also from this gentleman's head a healthy hair, having the piece of sound or normal hair longer than the diseased one The patient's hair, as you see, is much lighter in color than the normal hair which we take from the gentleman's head We now moisten these with a little water on the glass side and place them under a magnifying power of about four hundred diameters The first thing you now notice, as you each examine this specimen, is that the patient's hair, which is normally lighter in color, is much darker under the microscope than the healthy one The explanation of this is, that the diseased hair structure is so stuffed full of the spores of this vegetable fungus, that it renders it opaque, and hence darker in color than the sound hair The next thing you may notice is a great number of small, round or globular bodies all along each side and at the end of the diseased hair, while the normal hair will be seen to be entirely free from these bodies In other places near the diseased hair you will see, here and there, large clusters of these same bodies Now this trichophyton tonsurans, or vegetable growth of parasite, as it is called, is made up of what are termed spores, and mycelia or thread like bodies, and the round bodies I now call your attention to are the spores, and in this way, by placing a sound and diseased hair close together on the same side so that both come into the field at once to be examined and contrasted at the same time, the condition may be ascertained with positiveness by the most obscure

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ORIGINAL ARTICLES

THE COMPARATIVE VALUE OF THE NEW AND OLD TESTS FOR ALBUMEN AND SUGAR IN URINE[1]

BY H H FROTHINGHAM, M D,

OF MANCHESTER, IOWA

The importance of reliable and convenient methods of detecting the presence of albumen and sugar in the urine, as well as the quantitative estimation of each, must be recognized by every practicing physician as a diagnostic measure, and by every medical chemist as a means toward deciding that, at present, contested point—their presence or absence in physiological urine As every reagent known has its sources of error, the question is not which is perfect, but which is least objectionable As several new tests have been proposed for the detection of each of these substances in urine, and each of the reagents has supporters, who in turn consider each the most valuable, it seems desirable that some practical conclusion be reached In this paper the more reliable of the older tests will be contrasted with the newer, and as the former have held the field so long, from their priority, if no other claim were advanced, they are entitled to a hearing, furthermore, it must be shown that the newer reagents are more valuable

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[1] To which was awarded the "Faculty Prize for the best thesis presented by the graduating class of 1885 of the Chicago Medical College

In order to possess the greatest value to the practicing physician, a test must combine *delicacy* and *accuracy* with *convenience* and *cleanliness*

I Albumen —Picric acid was first used for the detection of this constituent of abnormal urine by M Galippe[1] In 1883 Dr Geo Johnson[2] again directs attention to its use in this connection, his claims being substantially as follows 1 That the reagent shows albumen in very dilute solution, 2 that it is more cleanly than nitric acid, 3 that the precipitate of picrate of albumen is readily distinguished from the similar compound with peptone, by the easy solubility of the latter upon heating, 5 that it may be carried in the pocket with safety, and so used at the bedside, 5 that it is especially valuable over nitric acid, in that a small quantity of the reagent does not prevent subsequent coagulation, and an excess does not dissolve the coagulum Dr Johnson's method of applying the test is to add first a vegetable acid to the urine until an acid reaction is obtained, then a few drops of a saturated aqueous solution of the reagent, or a little of the acid in dry powder, or a test paper previously saturated with the aqueous solution and dried If albumen be present it is coagulated upon heating The writer states later in the same article that he considers the acidulation of the urine unnecessary, as the reagent itself has a faintly acid reaction

Tungstate of sodium was brought forward by Dr Oliver,[3] of London, as a reagent of great sensitiveness, convenience and cleanliness The method of testing with this reagent is, first to acidulate the urine with a vegetable acid, then add a few drops of the reagent in solution, or a test paper in which it has been incorporated Upon heating, a cloudiness will be observed, the opacity of which depends upon the proportion of albumen in solution

Dr Oliver also conceived the idea of saturating bibulous paper with solutions of various reagents, to be used in testing for albumen and sugar An aqueous solution of mercuric chloride and potassium iodide, first announced by M Tanret, in 1872, is advocated by Bouchard,[4] who says, referring to its use "Every precipitate which persists after the employment of heat is due to the presence of albumen" Dr G Neville Stephen[5] advocates its use principally on account of its delicacy, and has also devised the following formula for quantitative work

℞	Potassii iodidi	3 22 grm
	Hydrargyri bichloridi	1 35 grm
	Aquæ destillatæ	100 c c

"One drop of this from a pipette giving a drop of 05 grm, precipitates 005 grm of albumen" Dr Roberts[1] uses a saturated solution of common salt in five per cent hydrochloric acid Ferrocyanide of potassium with acetic acid, phenol, and a mixture of phenol and alcohol, have all been recommended, but only the first named will be considered The inefficiency of the others is apparent to any one who has mixed carbolic acid and water

Exact quantitative estimation of albumen in urine can be made only by complete separation from a known bulk and weighing This can be done only by methods so complex and requiring so much time as to be impracticable to any but a professional chemist who has apparatus at hand A number of processes have been devised, however, for the approximate estimation Of these the more important are 1 That of Dr Stephen, mentioned above 2 That recommended by Dr Franklyn,[2] which consists of the comparison of the bulk or a precipitate obtained by nitric acid and heat with that of a known weight of albumen, coagulated in the same way To quote Dr Franklyn's article "According to Pavy,[3] white of egg contains $^1/_5$ by weight of pure albumen If one minim of white of egg be diluted by one hundred minims of water, nitric acid and heat give a precipitate of 12½ minims in a graduated tube, *i e*, a solution of $^1/_{500}$ by weight of pure albumen *indicates a proportion of ⅛ by bulk* To determine the amount of albumen in the urine, the whole amount for twenty-four hours must be collected, the precipitate by nitric acid well broken up by pouring from one tube to another, and allowed to settle By comparison of bulk with the ⅛ of known weight,—*e g*, suppose the bulk to be ⅓ and the quantity for twenty four hours 50 ozs, then $^1/_{500}$ (weight of ⅛ of 100) × 50 ozs = $^1/_{10}$ oz,—the whole amount, is shown"

5 Another method applied to sodium tungstate[4] is by comparing the opacity in a given sample with an *opacity of known value*, using as a standard a precipitate obtained from alum solution by ammonia, corresponding to a precipitate from a solution of pure serum albumen of one per cent strength "By diluting the urine under observation to this shade of opacity, the amount of albumen is easily estimated, as each volume of dilution corresponds to one decimal per cent of albumen For example, 10 diluted to 120 equals 1 2 per cent To estimate the amount of albumen in each fluid ounce, it is only necessary to multiply the percentage by 4 36, and for the twenty-four hours' urine by the number of fluid ounces The same author uses for comparison an opaque glass of a cloudiness corresponding to a known opacity of albumen precipitate

4 Still another plan is that applied to the Heller or concentrated nitric acid test[5] This method serves roughly to calculate the proportion of albumen in a given sample by the depth of the albuminous zone

The objections to the first quantitative method are manifest, in that every practitioner does not have a pipette giving a drop of 05 grm , and later it will be shown that the iodo-mercuric fluid is open to grave objections as a reagent The second method may be carried out approximately very easily, and the result is quickly translated It may be said that egg and serum albumen coagulate in different bulk, the latter being more compact, but upon shaking well there is found to be little difference between the two The third method is applied by sodium tungstate, and is practically useless, since it requires so much training and manipulation The fourth method is very roughly quantitative, and complicated by various factors, as shown later in this article

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[1] Medical Times and Gazette London 1874

[2] British Medical Journal December 8 1883

[3] Lancet February 8 1883 also 'Bedside Urinary Tests

[4] Le Lyon Medicale November, 1876

[5] Lancet, 1872

[1] Lancet, October 14 1882

[2] London Lancet May 10 1884

[3] "Food

[4] Dr Oliver, Lancet, May 24, 1884

[5] Tyson s Prac Exam Urine, p 45

Delicacy —In comparing the sensitiveness of the reagents mentioned with the more reliable of the older tests, viz , the "Heller's," and acid with heat, the writer pursued the following plan A sample of clear urine of acid reaction (sp gr 102) was chosen A portion of this, upon heating with 5 per cent its bulk of dilute nitric acid, and being well shaken to break up the coagulum, yielded a precipitate occupying 20 per cent of the whole bulk of the fluid, 50 cc of the original urine was mixed with an equal bulk of normal urine forming mixture No 1, 50 cc of mixture No 1 was similarly treated with normal urine, giving mixture No 2, 50 cc of mixture No 2 was added to the same bulk of normal urine, making mixture No 3, 50 cc of mixture No 3 similarly treated gave mixture No 4, 50 cc of mixture No 4 yielded No 5 similarly Each of these mixtures was tested by all of the methods above enumerated, except the carbolic acid The following table represents the result

	Mixture No I	No II	No III	No IV	No V
Picric	Reaction	Faint cloudiness	Negative	Negative	Negative
Tungstate	Reaction	Reaction	Reaction	Very faint	Negative
Iodo merc	Reaction	Reaction	Reaction	Very faint	Negative
Heller's	Reaction	Obscure reaction	Not determined	Negative	Negative
Ferrocyanide	Reaction	Very faint	Negative	Negative	Negative
Brine	Reaction	Very faint	Negative	Negative	Negative
Acid and heat	Reaction	Reaction	Reaction	Negative	Negative

Applying the rule of Dr Franklyn for quantitative estimation, to these results, it is found that none of the tests showed albumen in 01 of 1 per cent solution—that being the strength of mixture No 5 The tungstate and iodo-mercuric tests showed albumen in solution of 02 of 1 per cent The nitric acid and heat gave an undoubted test with 04 of 1 per cent The picric and ferrocyanide were equally sensitive, showing albumen in no weaker solution than 08 per cent by weight Heller's test and the brine solution may be classed together, as the former gave an obscuring color-ring and the latter a suspicion of cloudiness in mixture No 3, which had a strength of 08 of 1 per cent This process was repeated with nine other specimens of albuminous urine, selected at random and containing varying amounts of albumen, care being taken to select samples whose specific gravity corresponded very nearly to that of the normal urine used Two samples of hydrothorax fluid were also tested in the manner detailed above, except that for dilution distilled water was used instead of urine The results of the twelve analyses were practically the same with all the reagents, except picric acid, which failed to give a reaction with two samples of urine showing a bulk of 3 per cent by nitric acid and heat By diluting with distilled water, a smaller portion of albumen was shown than when urine alone was tested This is explained by the fact of absence of color in the former fluid, as a tint in the latter may have obscured the turbidity The smallest proportion of albumen shown in any of the experiments was 0008 or one part in 12,500

These figures do not agree with the statements of Dr G N Stephen and Dr Oliver in articles quoted above Dr Stephen says that the iodo-mercuric precipitates albumen from a solution of only one part in 20,000, and Dr Oliver concludes "As a result of many observations and experiments," that in his opinion one part of albumen may be discovered in 20,000 by the iodo-mercuric, picric and tungstate tests, in 10,000 to 12,000 by the ferrocyanide and brine tests, and in 6,000 to 7,000 by the heat and nitric acid

Dr C W Purdy[1] reports a number of experiments made with a view to establishing the relative values of the albumen tests He concluded that the iodo-mercuric and tungstate reactions are the most sensitive, but makes no quantitative estimation of their value In one of his experiments (that with blood serum) the amount of albumen is, however, easily estimated, as human blood-serum is known to contain 8 to 9 parts of proteids in 100[2] Now, although Dr Purdy agrees with Dr Oliver in his deductions, yet in this experiment really only as strong a solution of albumen as one in 10,000 was detected Dr Purdy also found picric acid to be more delicate than nitric and heat Dr Geo Johnson is similarly convinced On the other hand, Dr Tyson[3] says of the picric solution "I have experimentally determined that the heat and nitric acid tests show smaller quantities of albumen than it does, while my friend, Dr H P Bowditch, of Boston, has arrived at the same results, experimenting with carefully prepared solutions of egg albumen of known strength "

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[1] Journal of American Medical Association, January 19, 1884

[2] Hammersten Foster s Physiology

[3] Prac Exam Urine pp 40

In my own experiments, the tests were applied to each dilution with great care and the eyesight of several persons called into play before a doubtful specimen was decided upon, and in these trials, picric acid never showed opacity by reason of albumen when nitric acid and heat failed The iodo-mercuric and picric have, so far as I know, been conceded the first place in delicacy of reaction with albumen, but the measure of superiority in this direction is exceedingly fine In my experiments these reagents showed albumen in only 02 of 1 per cent more dilute solution than nitric and heat, so that practically the preference in the way of sensitiveness is nil, so far as regards these three tests

Accuracy —As each test depends for its reaction upon a precipitate, the questions naturally arise as to what are the substances other than albumen likely to give a precipitate with the reagents, and under what conditions is albumen likely to be retained in solution when the test is applied 1 Picric acid, in acid solution, precipitates urates, vegetable alkaloids and peptone—all soluble upon heating for a longer or shorter time, as the case may be,—resins, as copaiba, turpentine, cubebs and others—soluble in alcohol In alkaline or neutral it throws down the phosphates If no vegetable acid be previously added, a precipitate of calcium phosphate is liable to appear upon heating, which redissolves when cooled Dr W G Smith[1] considers this to be due to "the disturbance by heat of the nice adjustment in proportion and basicity of phosphatic salts in urine " Whether this be the correct explanation or not, it is certain that in order to keep the phosphates in solution, a pronounced acid reaction is necessary Tungstate and iodo-mercuric solutions are well known alkaloid reagents, and both precipitate peptone and resins These precipitates in my experiments, were only soluble upon *prolonged* heating or in the case of resins and alkaloids upon standing with alcohol I am not at all satisfied that the precipitate of peptone is completely soluble, some of it certainly disappeared when boiled A saturated solution of uric acid at about 40° C gave a precipitate with picric, tungstate and iodo murcuric fluids In normal solutions (5 to 8 grains in 1500 cc) no reaction was apparent With three samples of urine showing a large amount of bile pigment by Heller's and Marechalt's pigment tests, and giving no reaction for albumen by nitric acid and heat or ferrocyanide of potassium, an abundant precipitate came down with tungstate and iodo-mercuric This precipitate was neither alkaloid nor insoluble upon heating and in alcohol, moreover, picric acid gave no precipitate, which would indicate that it was not peptone Resins, if present, should have been precipitated by picric and nitric acids The microscope revealed nothing abnormal Bile salts may have been present in sufficient quantity, as the specimens were destroyed without the application of Pettenkofer's list

Prof Bouchard, in the article previously referred to, says of the iodo-mercuric test "1 An excess of iodide of potassium is necessary 2 If mucin be present it falls as a precipitate, but more slowly than albumen 3 Urates form a precipitate slowly, in the middle of the tube, not flocculent, which disappears upon heating 4 In alkaline urine the double iodide test gives a precipitate which turns gray and then black 5 Alkaloids precipitate, forming at the middle of the tube, redissolved upon heating or addition of alcohol " The albumen precipitate is supposed by him to form near the bottom of the tube Dr C W Purdy states that upon standing, even in acid solution, the mercuric-potassium compound liberates iodine, discoloring the solution This would preclude the setting aside for the precipitate to settle In experimenting to test the accuracy of these statements, I have not been able to verify the distinction between the location of albumen precipitate and that of alkaloids, urates or mucin The cloud forms at the point of junction of the two liquids in any case, and if they be mixed, will be distributed accordingly The difference in time between mucin and albumen coagulation was not distinguished

Ferrocyanide of potassium is a preciptant of albumen, whereas the other reagents are said to coagulate it This test is perhaps more accurate than any of the others considered, except the brine It does not precipitate peptone, urates nor alkaloids, but it is decomposed by heat giving a precipitate of its own elements The brine test is quite accurate with stronger solutions of albumen and a good confirmatory method in case of doubt, if the amount be large Hemi albumose is precipitated by this reagent

Peptone is mentioned as a source of error with certain of the reagents According to Foster (Physiology) the peptones are not precipitated by cupric sulphate or ferric chloride, but are thrown down by iodine, tannin, chlorine, mercuric chloride, mercuric nitrate, silver nitrate lead acetate and subacetate and *bile acids* in acid solution They give a red color when mixed with caustic potash or a trace of cupric sulphate,—a large quantity of the latter causing a violet coloration Hemi-albumose (Meissner's A Peptone) is precipitated by concentrated nitric acid and by potassium ferrocyanide in weak acetic acid, dissolves at 70° C and falls upon cooling, and is also soluble in 10 per cent sodic chloride solution

There is great difference of opinion as to the frequency of peptonuria Dr Geo Johnson[1] considers its occurrence rare Fenomenow[2] says, "*Peptonuria* occurs in scarlet fever, exudative pleurisy, nephritis, puerperal diseases, disturbances of compensation in heart diseases, pulmonary phthisis, typhoid fever accompanied by constipation and a temperature above 40° C, always occurs in the final stages of croupous pneumonia, and is in direct relation to the absorption of the croupous exudate *Frerichs*, and very lately W Fischel[1], find peptonuria of very frequent occurence in puerperal women Dr Bence Jones[2] found in the urine of persons suffering from osteomalacia, a substance not exactly defined by him, but which answers to the same tests as hemi-albumose or A-Peptone I have found peptone in the urine of diabetis, and subsequently ascertained that the patient was taking pancreatine with his food, but whether this be a *post hoc* or a *propter hoc* I do not know A method for the detection of peptone, given by Dr N A Randolph[3], depends upon the fact that while nitrate of mercury added to cold aqueous solution of iodide of potash precipitates iodide of mercury, if peptone or bile salts be present, the precipitate of nascent mercuric iodide appears yellow

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[1] British Medical Journal, July 14, 1883

[1] British Med Journal, Dec 8, 1883

[2] Deutsche Med Zeitung, May 8, 1884

Acetic is preferred to nitric acid by Tyson for the heat and acid test, under the belief that it less often fails to coagulate albumen, if present Brown-Séquard[4] notes that after the addition of nitric acid and heat, no precipitation occurs in some cases, but that a second boiling always brings it down In testing about sixty samples of suspected urine with both acetic and nitric acids, I found that the former never gave a precipitate when the latter failed, but, in a number of instances, acetic gave no test, when nitric showed abundance of albumen With a sample of the fluid from hydrothorax acetic acid and boiling did not alter in the slightest the transparency of the fluid, but nitric acid, either cold or heated, filled the test-tube with a coagulum This comparative test was repeated with hydrothorax fluid, and also with a sample of albuminous urine (showing casts in abundance by the microscope), using different proportions of acid varying from 1 to 30 per cent No coagulum was formed by acetic acid, while nitric *never failed* in the whole number (twelve) of comparisons Dilute nitric acid, when used in proportion of 5 to 15 per cent, the urine being afterward heated to boiling, has never failed in my hands to give a coagulum in albuminous urine, but, if added in too small an amount to neutralize an existing alkalinity, or, if used in excess, it may fail The Heller test coagulates mucin (as do all the others, not excepting the brine and ferrocyanide), precipitates urates—soluble upon heating, throws down copaiba and other resins which would be dissolved in alcohol It also precipitates hemialbumose Nitric acid and heat precipitate urates and resins, and coagulate mucin The latter is easily differentiated by its appearance in shred-like or stringy masses, quite characteristic Urates are dissolved upon heating and resins by alcohol The latter show their presence by their odor always, and so should never be mistaken

Convenience and Cleanliness —The relative convenience and cleanliness of the tests under consideration must be, to a certain extent, a matter of individual opinion, for, as one accustoms himself to one method to the exclusion of others, its manipulation becomes more and more easy However, to one who has not tried all of the reagents, their relative value in this connection will be a matter of importance In this connection test papers may be alluded to, as their chief claim to notice is their convenience The result of a fairly thorough trial with the papers has convinced me that they are cleanly, convenient, but unreliable, and of no use whatever in quantitative work, for—1 Floculent particles of the paper itself are apt to separate and obscure the test by simulating albumen 2 They are of uncertain strength, as, for instance, picric acid is never present in them in sufficient quantity for a positive reaction, and the iodo mercuric deteriorates unless kept perfectly dry or away from atmospheric air 3 Quantitatively they cannot be used, for, if the amount of albumen be large, so many papers must be added, as by their very bulk to obscure the test, or the urine must be diluted, adding to the manipulation, and, even then, complete coagulation can only be determined by a series of tests Again, if the reagent be a coagulant, the solidified albumen is liable to form a dense coating immediately around the paper, thus preventing the escape by solution of all the reagent Other objections might be mentioned, but these are the principal ones, and sufficient to condemn them as usually applied

Picric acid requires the previous addition of a stronger vegetable acid to urine, besides heating It stains the fingers and everything with which it comes in contact Dr Johnson says that these stains are removed by soap and water They are, if a liberal supply of patience be included Tungstate and iodo-mercuric fluids are cleanly and easily applied They require the additional use of acid, however, besides heating The iodo-mercuric must be kept in tightly-corked bottles The precipitate of albumen by these subsides slowly, so that time is needed for estimation by bulk The brine test is easily applied, but hardly convenient, on account of the quantity of fluid required, and is not used quantitatively Ferrocyanide of potassium requires the addition of vegetable acids, and is slow in its action Heller's test is applied by concentrated nitric acid, which is corrosive, and stains everything it touches It is quick quantitatively, but requires some delicacy of manipulation for successful use Nitric acid and heat may be applied with the dilute acid, thus obviating the stains and erosions pertaining to the strong the coagulum is rapidly deposited, and hence the quantity quickly determined

It is impossible to state absolutely the relative values of most of these methods until the questions of physiological albuminuria and of the importance of peptonuria are definitely answered In the present state of our knowledge, however, I think it must be conceded

1 That the dilute nitric acid and heat test is open to less weighty objections than any of the other tests herein considered, and that, properly applied, it has greater claims to superiority than any other so far investigated

2 That the tungstate, iodo-mercuric and picric tests if applied, must be subjected to corrections requiring time and manipulation more than the older

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[1] Archiv für Gynækologie, Band 24

[2] Annal Chemie u Pharm Band 67

[3] London Lancet, June 28 1884

[4] Archives, 1873

acid and heat, and that they are less reliable—especially in the form of the test papers

3 That the ferrocyanide and Heller tests are less perfect than the nitric acid and heat

4 That the brine test is reliable, but not so valuable as the nitric and heat The former may prove convenient to a country practitioner in case of emergency, as the materials for its application are at hand in every well regulated kitchen All that is needed is a sample of urine, a large spoon, a lamp, a pinch of salt and a few drops of vinegar

The question of differential diagnosis of renal disease by the appearance of retractile or of homogeneous albumen upon testing the urine, was raised by Prof Bouchard,[1] who claimed to have demonstrated *the existence of two kinds of albumen in the* urine, pathologically distinct, and also to have demonstrated their semeiological value He found that upon heating albuminous urine, *previously treated* by different chemical reagents, sometimes the coagula collected in flocculi, leaving outside a limpid fluid, while at other times no such retraction took place, but the whole remained opague, and he believed that this fact distinguished between *renal* disease and the effects of others, and that the retractile form was only normal serum albumen transuded by pressure or by actual lesion of the kidney Non-retractile albumen, on the other hand, was thought to be an abnormal albumen capable of dialyzing through normal renal epithelium [2] Dr Robet[3] declares that the difference is only caused by different reagents, retractile albumen appearing when acetic acid was added, and homogenous when alkalies had previously been used He also states that the latter form is flocculent under the microscope Albumen which showed the retractility in my experiments with nitric acid and heat did not retract, but remained homogeneous under the tungstate of sodium and iodo-mercuric tests, unless the citric acid (always used before these) was boiled with the urine before adding the reagent Picric acid gave a retractile coagulum with all samples in which it was mixed Ferrocyanide of potassium, of course, being a precipitant, gave no retractility I tested samples of urine from albuminuria accompanying scarlatina and pregnancy, and never found a sample which gave a non-retractile clot with nitric acid I do not know that the facts would warrant a conclusion, but it seems *very probable that* the tungstate and iodo-mercuric tests precipitate rather than coagulate albumen, and *that a coagulum* by acid and heat always retracts unless the character of the albumen be changed by the previous addition of an alkalo —in other words, that the retractility is due more to the reagent employed than to the character of albumen tested

II SUGAR —Of the newer tests for sugar in urine, the more important are, picric acid in alkaline solution and the indigo test C D Braun[4] first called attention to picric acid with a caustic alkali, as a test for sugar in urine The subject seems to have received no further attention, however, until in 1883 Dr Geo Johnson[1] brought the matter once more into prominence The test depends upon the power of grape sugar to act as a reducing agent upon picric acid, resulting in the formation of picramic acid which has a deeper color, the value of the test depending upon the color change

Dr Johnson's method of application is as follows 10 ♏ of a cold saturated solution of picric acid are added to a mixture of ʒiss of urine and ʒss of caustic potash solution, the whole being boiled Quantitatively 10 ♏ of the picric solution is reduced by ʒi of a solution of glucose gr i to the fl℥i, in other words, one minim is equivalent to $^{1}/_{80}$ grain of sugar The experimenter establishes a standard color by a *solution of ferric acetate in excess of ferric chloride*, and by diluting the fluid tested to a corresponding shade, calculates the quantity of sugar present by the *relative quantities of urine and picric solution*

The sulph-indigotate of sodium is used by Dr G W Oliver[2] as a test for glycosuria, and depends for *its action upon the property*—known and applied by sugar refiners more than thirty years ago—of indigo-carmine to become converted into indigo-white in the presence of certain organic matters Indigotine (the coloring matter of ordinary commercial indigo) brought into contact with oxidizable vegetable material in the presence of alkalies, takes up *hydrogen* and is converted into indigo-white, which in its turn, under the influence of oxygen, is capable of reconversion into indigotine Dr Oliver *uses the sulph-*indigotate and the carbonate of sodium in the form of test-papers

Dr Pavy has lately called attention to quantitative determination of sugar by the ammoniated cupric test, in which instead of a precipitate a soluble oxide of ammonia is formed, and a decolorization of the fluid results, the extent of which determines the amount of oxidizable material in the liquid tested [3] The fallacies of all these tests, as well as of Trommer's, Fehling's and the Bismuth reactions, lie in *the fact that they depend for* reactions simply upon the presence in the suspected fluid of oxidizable organic material and not especially upon the presence *of sugar* Thus, uric and hippuric acids, hypoxanthin, indican, ammonium chloride[4], urate and other compounds, creatin, creatinin, pepsin and peptones, all by their presence complicate the tests With a view to determining the relative delicacy, accuracy and convenience of the reagents named, I tried each in turn with

1 Solutions of varying per cent of glucose in distilled water

2 Graduated solutions of glucose in normal urine

3 Normal urine alone

4 Urine containing excess of indican

5 Normal (8 grm in 1,500 cc) solutions of uric acid in distilled water

The following table represents the results obtained in each case

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[1] Soc de Biologie 1880

[2] Dreyfus Brissac Gazette Hebdomidaire, 1881, page 326

[3] Le Lyon Medical April 23 1882

[4] Zeitschrift für Chemie 1865

[1] Brit Med Journ Dec 8 1883

[2] London Lancet, Aug 1883

[3] London Lancet, March 1, 1884

[4] Beale

	GRANULATED SOLUTION OF GLUCOSE	MIXTURES OF GLUCOSE AND NORMAL URINE	NORMAL URINE	URINE WITH EXCESS OF INDICAN	URIC ACID SOLUTION 8 IN 1500
Picric Acid	*Reaction* manifest with 04 per cent solution	*Reaction* with 1 per cent solution	Reaction, varying from a trace up to 2 per cent, according to saccharimeter	*Reaction* distinguished in 1 3 of samples examined	Reaction definite, showing strength of 1 per cent by saccharimeter
Indigo Test	*Reaction* with solution of 04 per cent strength	*Reaction* with 1 per cent solution	*Reaction*, if any obscure, could not be determined	*Reaction* not well determined	*Reaction* well marked
Fehling's Sol	*Reaction* with solution of 02 per cent strength	*Reaction* with 1 per cent solution	Reaction faint in 1 6 samples examined	*Reaction* faint, ppt came down on long standing	Reaction showed about 1 per cent
Trommer's Test	Same as Fehling's	Same as Fehling's	Same as Fehling's	Reaction definite upon standing	Same as Fehling's
Dudley's Test (Bismuth)	Reaction with 2 per cent solution	Reaction with 5 per cent solution	Reaction not noticeable	Reaction not noted	Reaction faint but perceptible

Color tests are open to a serious objection on account of the fact of the prevalence of color blindness About 4 per cent of males are unable to distinguish red from green[1] and a far greater number cannot separate tints Now, as these tests depend for accuracy upon an application of very delicate shades of a single color, it is obvious that they are useless to a great many They require, furthermore, a great deal of manipulation The picric acid is especially difficult to use and requires great practice for proficiency in quantitative work In high colored urines it is more difficult to detect a reaction than in pale (The saccharimeter of ferric chloride and acetate is uncleanly of preparation, staining deeply wherever it touches, and a far better standard is made by mixing a few drops of ferric chloride with a solution of potassium sulphocyanide) Albumen must be removed before applying the test, as the reagent is used up in combining with it,—turbidity obscures the tint and the combination may give a color of its own upon standing The color of the solution tested is deepened by the presence of uric acid or indican The sulph-indigotate is more easy of application, and in fairly strong solutions of glucose its reaction is very beautifully marked There is, to a more marked degree in this test, the difficulty of telling how much of the change in color is due to the mixing of the two fluids,—one being of an amber or deeper tint, the other a blue—and how much to the chemical change, especially if the proportion of sugar present be small The test is also obscured by indican and uric acid The copper tests are open to the common objections already stated They do not depend for their reaction upon a change of color altogether They are not practically reduced by any of the organic substances named, except uric acid, peptone and indican They are the most easy and accurate quantitative tests known

The bismuth tests are not of use in quantitative work, and are open to the common objections and require the removal of albumen The ammoniated cupric test requires much manipulation and the ammonia is very apt to evaporate during the process, making another application necessary, besides this, the apparatus is cumbersome

As to the detection of minute quantities of sugar in urine, the question arises, is the faint reaction noted with certain specimens of urine due to sugar, or some of these other organic matters? Again, does sugar in small quantities exist in urine? Dr Johnson[1] believes that sugar exists in proportion of 5 to 9 gr per f℥j Dr Alonzo Roquosi[2] states that he found sugar in the urine of hysterical persons, and Dr R Wagner[3] says that sugar in the urine of hysterical persons is an incontestible and proven fact Dr S Waterman relates three cases of supposed diabetes with low specific gravity of urine (ranging from 1002 to 1007) in which Trommer's test threw down the sub-oxide only upon standing several days[4] (None of these observers state the amount found) Now, as hysterical urine, being of so low specific gravity, can only contain a small amount of solid matter, and as all the more delicate tests for sugar are liable to complication by other organic matter normally present—*e g* uric acid,—it cannot be considered proven that because a reaction is obtained sugar is present

The following conclusions with regard to the sugar tests may, I think, be justified by the facts in the case -

1 In the present state of knowledge it cannot be considered proven that sugar does or does not exist normally in urine

2 All of the tests for sugar in urine depending upon oxidizable organic material are hence liable to error, as all organic matter cannot be removed (leaving only the sugar) before the test is applied Practically this source of embarrassment amounts to but little, for sugar when in quantity of over 2 of 1 per cent is unmistakable by the Frehling test

3 That the Fehling and Trommer tests are the most valuable reagents known for the detection of sugar in urine, the Fehling being the better of the

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[1] Williams on the Eye

[2] Thudichum, Patho' of Urine

[1] British Medical Journal Dec 8 1884

[2] Commun Academy of Sciences 1851

[3] Royal Society Trans Göttingen March 15 1857

[4] N Y Medical Record, vol xxii p 779

two, and best of all for quantitative work, as it requires a minimum amount of manipulation and is easily and accurately estimated.

4. Picric acid is very liable to error, especially quantitatively, being a color test. It requires a great deal of manipulation, is uncleanly, and in no way superior.

5. The indigo test is very liable to error, especially in high colored urines, and very difficult to estimate accurately, as it requires considerable manipulation.

The 'Roberts' or fermentation test has not been considered, as it is uncleanly, does not show small proportions of sugar, and consumes a considerable time and trouble in application. It is, however, valuable over Fehling's in urine containing peptone, for here the copper tests are obscured greatly, though I have never been puzzled by this factor except in specimens of urine from one case of diabetes mellitus, cited above.

LOCOMOTOR ATAXIA, ITS DIAGNOSIS AND TREATMENT IN THE PREATAXIC STAGE.[1]

BY D. R. BROWER, M.D.,

OF CHICAGO.

Locomotor Ataxia is the most frequent affection of the spinal cord. The preataxic stage, although easily recognized, is easily overlooked as the result of a hasty diagnosis. During this stage the disease is curable if appropriate treatment is instituted, otherwise the patient gradually drifts into the second or ataxic stage, when the derangement of the nervous system is so manifest that a mistake in the diagnosis is then hardly possible, for he falls into the hands of a specialist in diseases of the nervous system, only to be told that he is beyond the possibility of a cure.

The elements that enter into the diagnosis of the praetaxic stage, therefore, are of momentous importance, and are *first*, sensory disturbances, as lightning pains; *second*, disturbances in patellar-tendon reflex; *third*, disturbances in pupillary reflex; *fourth*, disturbances in vesical reflex; *fifth*, disturbances in sexual condition; *sixth*, disturbances in gastric functions; *seventh*, disturbances in mental action; *eighth*, disturbances in muscular functions. The first three are the most valuable diagnostic points, as regards the sensory disturbances, such as pains of a peculiar character, spots of hyperæsthesia and anæsthesia in the lower extremities, that are sudden, severe and transitory, the former are like electric shocks, violent blows, stabbing with knives or burning with hot irons, compelling on the part of the strongest men violent outbursts of emotional disturbances. The pains are often localized in spots upon the surface that a silver dollar will cover; they may last a few hours and then disappear as suddenly as they came, returning usually in other spots after an absence of a few months or years. They are sometimes situated deeply in the soft tissues or bones of the extremities; at other times they are not localized, but present all the appearances of ordinary neuralgia, and again in other cases the pains are entirely absent.

The condition of the reflexes constitute the most valuable aids to diagnosis in this disease. The Patellar tendon reflex is diminished or lost; there may be exceptional cases in which the knee-jerk is normal, but the writer has never as yet observed this. In such cases the sclerosis must have commenced above the lumbar enlargement. This reflex is probably absent in two per cent. of healthy persons. We must, therefore, know that the person under examination once possessed a normal knee-jerk to enable us to draw any pathological significance from its absence, and the ordinary method of eliciting contracture of the quadriceps femoris by tapping the ligamentum patellæ when one knee is crossed on the other is not sufficient. The patient should be placed on a table, in the sitting posture, with the legs hanging over the edge. In this position the presence or absence of the knee-jerk is much more readily detected. The reflex being absent, the next question to establish is as to the integrity of the muscular structure of the quadriceps femoris, which can be determined with electricity and mechanical stimulation. If the muscle has a normal response to faradization, or responds by contraction to a tap over its surface, the muscle is healthy and the sign is diagnostic.

The pupillary reflex is diminished, or lost. The iris may contract equally, or one pupil is dilated or normal, and the other contracted; but the loss of reflex action to the stimulus of light, and the absence of dilatation of the pupil to stimulus applied to the surface of the neck, with this loss of reflex accompanied by a normal condition in efforts at accommodation, is the most striking symptom. The pupil will dilate in a strong effort at distant vision, and contract in a powerful effort at close vision. Another common ocular disturbance is, temporary double vision. This may last only a few hours, disappear, and return in a few months; or it may continue a few days and not again appear. Color blindness is also very frequent, the ability to distinguish red and green being first lost.

The vesical reflex, at the very beginning of the preataxic stage, is variable; usually the bladder is irritable, but this soon gives place to diminished reflex acuteness, and instead of a frequent desire to urinate, the patient slowly drifts into a condition quite the opposite, so that there may be no demand for the performance of this function oftener than twice in twenty-four hours. This condition is accompanied by diminished tone of the bladder walls, so that there is difficulty in commencing the act, and the stream, instead of being projected forcibly forward, falls abruptly, or, simply dribbles, and the patient is often unable to determine when the act is finished, except using his eyes to determine it.

The *sexual condition* of the preataxic stage is, first, one of irritability, but is soon replaced by a diminution of all desire and capacity for intercourse, which may, in turn, be followed by nocturnal emissions.

Gastric disturbance in the preataxic stage is manifested by attacks of violent nausea, persistent vomiting and pain. The writer has a case under observation in which gastric trouble has been the only prominent symptom for five years The patient, during all this time, has been treated for a variety of gastric derangements The attacks recur at intervals varying from a few weeks to a few months The patient also has dilated pupils, loss of patellar tendon reflex, and occasionally has attacks of lightning pains

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[1] Read before the Chicago Medical Society, March 16, 1885.

The *mental condition* is usually altered in the preataxic stage The patient has fits of melancholy, he becomes morose and irritable, timid, and very emotional, and will shed tears on the least provocation He loses, for a time, at least, his interest in business, and, to a certain extent, his usual ability in business transactions

The *muscular system* in this stage is weak There is no ataxia, but there is a sense of weight and weariness in the limbs, with difficulty in going upstairs The condition is quite like that experienced in neurasthenia

The foundation for the successful treatment of the pretaxic stage of this disease is *rest*—absolute, positive, and prolonged The recumbent posture should be maintained for several months This idea of rest in the treatment of locomotor ataxia is an innovation, but it is based upon the generally recognized scientific fact that a diseased organ should have its functional activity reduced to a minimum quantity, and this principle applies with as much force to the spinal cord as to any other organ Rest, accompanied as it is by diminution of the nutrient activity of the nerve fibres, and by diminution in the calibre of the blood vessels, must be antagonistic to the pathological processes that have begun in the cord, but, as Weir Mitchell has taught in his treatment of hysteria, it is necessary to maintain the greatest activity of general nutrition, and to prevent muscular waste The judicious use of massage and passive movements will often enable the ataxic patient to replenish the nervous system in the recumbent posture The diet should be of the most nutritious character, cod liver oil and the syrup of the hypophosphites are often of the greatest service The condition of the emunctories should be constantly looked after Electricity, in the form of the galvanic current of mild intensity, used after the method of general galvanization daily, is of service, and by its alterative and tonic properties will assist in modifying the pathological process The spinal electrode should be large The electric brush, with the faradic current to the back and lower extremities, will, by reflex action, assist in relieving the morbid condition, as well as in maintaining a more healthy condition of the parts during the treatment of rest

Syphilis is probably the foundation of almost every case of locomotor ataxia, such, at least, seems to be the opinion of the majority of the best writers on this subject, as for example, Erb In the experience of the writer, of the cases that have come under his observation, he is certain that the treatment of primary and secondary symptoms of syphilis was not sufficiently energetic or of sufficient duration, and there seems to be no doubt that the patients were thus predisposed to locomotor ataxia To guard against the occurrence of locomotor ataxia after syphilis, mercury and iodide of potassium should be used boldly and for at least two years after the development of the primary sore, in this way it is possible that every germ of specific trouble may be removed from the system

Should locomotor ataxia have already begun, antisyphilitic remedies should be used, mercury should be pushed to a point short of salivation, and the iodide of potassium given in drachm doses three times a day, or in larger doses if the patient can tolerate them Iodide of sodium is often better tolerated, though it is not so efficient as the iodide of potassium Effervescing Vichy salt is a desirable correction for these large doses of potash and mercury In non syphilitic cases, or in those which do not improve under anti syphilitic treatment, nitrate of silver may be given with advantage in gr ¼ or ½ doses, combined with some excipient that will not decompose it It should be administered before meals A factor in an unsuccessful use of nitrate of silver is the difficulty of getting it into the blood without decomposition The writer has successfully used the hyposulphite of silver hypodermically, it is particularly satisfactory in being unirritating, he has given gr jss daily until gr xc had been administered

Another drug of undoubted value is ergot, in flʒj doses, three or four times a day Cold baths, at a temperature of 65° to 70° Fah, are of service, but hot baths are very injurious, and should be avoided, as should the administration of strychnia The writer has treated quite a number of cases by the plan mentioned above, some of these who were taken in the preataxic stage have recovered entirely, others have regained lost functions, except, perhaps, the patellar tendon reflex, but they are so much relieved that they are able to resume their business

MEDICAL PROGRESS

SURGERY

Continuous Traction in the Treatment of Pott's Disease —Dr John F Ridlon, of New York, referring to a recent article on this subject, by Dr Buckminster Brown, in the *Boston Medical and Surgical Journal*, of July 3, 1884, reports the following case

Patient, female, seven years old Hereditary history, good Four months ago her neck began to grow stiff, and soon head began to droop forward No complaint of pain, and no crying at night noticed The condition increased The general health remained fairly good

Examination —The chin rests on the sternum, and at times is steadied by the hands Voluntary movement of the head is impossible Attempted passive movement in any direction elicits an anxious look but no complaint of pain, and the head is found to be held absolutely rigid by muscular spasm There is a sharp angular kyphos at the third cervical vertebra No evidence of abscess The patient was put in bed on July 19, a Sayre's collar was applied, and from it a cord passing over a pulley at the head of the bed, which was elevated, and a ten-pound weight attached It was soon found that the patient would slide up in bed till the straps from the collar struck the pulley and released the traction A harness was then arranged, of webbing around the waist and over the shoulders, and passing to the foot of the bed, where it was fastened The appetite was good and the sleep normal From this time case progressed favorably The muscular spasm relaxed, the chin left the sternum and the kyphos diminished By the end of six weeks, voluntary rotation and flexion were possible to a considerable degree when the patient was lying in bed

By November 15, four months from the beginning of treatment, the deformity was entirely reduced, and motion free in all directions when the head was supported When support was removed, however, the head drooped forward, and the patient caught the chin in her hands and complained of the motion A support was then applied consisting of a modification of the H G Davis brace The upright pieces of steel, instead of stopping opposite the lower borders of the axillæ, were carried up along each side of the spine, carefully molded to the surface, and up over the posterior surface of the head to the occiput From here a strap was carried around the forehead, and another downward to form a chin support The chin support was removed at meal times, and has recently been removed altogether Up to the present time there has been no return of the deformity, and the possible voluntary motion has increased —*The Medical Record, Feb 7, 1885*

The Use of Iodoform in Billroth's Clinic —The Vienna correspondent of the New York *Medical Record* says The preparations of iodoform in use in the service of Professor Billroth, are the following 1, The powder, used in places where the gauze is impracticable, as in the pharynx, or in wounds of the soft or hard palate 2, the gauze, of three kinds, the ordinary gauze for general dressing purposes, containing from 10 to 20 per cent of iodoform, the iodoform gauze with colophonium, used about the mouth and where there is parenchymatous bleeding, and a third variety of gauze with tannin and iodoform, used where there is profuse bleeding, as in operations about the face and genitals, 3, an emulsion with glycerine, containing about 20 per cent of iodoform, and used as an injection after the evacuation of pus in cold abscesses, in empyema, etc, 4, iodoform with collodion, used in small superficial wounds, ulcers, etc, 5, iodoform pencils, of different sizes, for insertion into sinuses, urethra, etc, containing about 75 per cent, 6, iodoform vaseline, 20 to 40 per cent

The powder is only used when the gauze cannot be, and not in large quantities The gauze must come everywhere in contact with the fresh surface, if it is a wound whose edges are not brought together, over this first layer of gauze is heaped layer upon layer of the same material, over this absorbent cotton and the ordinary bandages This dressing is always to be removed within the first twenty-four hours after the operation where there was much bleeding, or in operations of considerable size, and entirely new dressings applied in the same manner This second dressing is not to be changed in from eight to fourteen days This rule is especially insisted upon, particularly in wounds about the mouth Repeated changing of the dressings, with the use of fresh gauze, is the chief cause of iodoform poisoning In wounds which are to heal by granulation, very light compression is made Before applying any dressing, the wound and the parts surrounding it are always thoroughly irrigated with a 1 per cent solution of carbolic acid With these precautions, in spite of what would seem to the American surgeon the immoderate use of iodoform, there has not been a single severe case of iodoform poisoning in Professor Billroth's service

Hæmaturia due to the Presence of a Leech in the Urethra —Assistant-Surgeon Khazan Chand reports the case of a Mohammedan male who was admitted to the hospital on account of a sudden and enormous bleeding from the urethra, which the patient could not account for The hæmorrhage continued for three days, notwithstanding gallic acid and ergot were given freely internally, and alum and nitrate of silver injections were used At noon of the third day the head of a leech protruded through the meatus urinarius to the extent of a quarter of an inch The head was seized and the leech drawn out Bleeding stopped altogether, and the patient was allowed to return home in the evening The patient was in the habit of bathing in a tank containing leeches in abundance —*The Indian Medical Gazette*, January, 1885

MATERIA MEDICA AND THERAPEUTICS.

Keratin-Coated Pills —Dr Unna, of Hamburg, has discovered a coating for pills, which is likely to prove even more useful than it is ingenious The task which he set himself was to find a coating which would resist the solvent action of the gastric juice, but would dissolve in the small intestine This he has succeeded in doing by the use of keratin, a substance extracted from the shavings of ox or buffalo horn The shavings are first digested by artificial gastric juice (pepsine solution with 1 per cent hydrochloric acid), and are then macerated for weeks in ammonia When the ammonia is driven off, a gummy solution of keratin is left, from which, by drying, keratin is obtained in the form of shining, bright, yellow flales

A pill which is to be covered with keratin requires to be prepared in a special manner The medicine employed is first rubbed well up with cocoa butter or tallow, with the addition of some indifferent powder, if necessary, and pills are made The pills are then covered with cocoa butter, so as to prevent any of the medicine from being on the surface of the pill When the pill is hard it receives one, or, better, two or three coatings of solution of keratin If the substance of which the pill is made renders solution in ammonia inconvenient, a solution in glacial acetic acid may be used Keratin coated pills are insoluble in the gastric juice, but dissolve as soon as they enter the small intestine, and have, therefore, a special value in cases in which medicines which have an irritating effect on the mucous membrane of the stomach are to be administered for any length of time, for example, when arsenic, salicylic acid, kreosote, copaiva, cubebs, tartar-emetic, and vermifuge medicines are prescribed

The method is further useful when medicines are given which are affected by digestion in the stomach, forming insoluble precipitates with pepsin and peptones, for example, tannin, alum, acetate of lead, subnitrate of bismuth, nitrate of silver, bichloride of mercury, etc , and, further, in the case of medicines which it is desired should enter the intestine in as concentrated a form as possible, and medicines which are given with the view of affecting favorably diseased conditions of the mucous membrane of the stomach without exercising an irritating local action, for example, iron, quinine, arsenic in catarrh of the stomach arising from ammonia —*British Medical Journal*

The Potential Capacity of the Female Bladder —Dr W E Green relates the case of a woman, five months advanced in pregnancy, suffering from obstinate constipation, who retained her water for five days, from whom was drawn off by the catheter 180 fluid ounces of urine,—1 gallon, 1 quart, 1 pint and 4 ounces On making a vaginal examination, there was found to be a retroversion of the gravid uterus, firmly impacted between the vagina and rectum, and causing obstruction to the neck of the bladder She died a week later with cystitis —*British Medical Journal*

Trichloro-acetic Acid —This is the name of a substance discovered by Dr Filippowitch, o Odessa, and possessing strong antiseptic properties In a table showing the various strengths of the different antiseptic substances this new acid takes a high place, corrosive sublimate, carbolic acid, trichloro-acetic acid, chloride of zinc, borax, permanganate of potassium, representing the order in which he has placed them It is claimed for this acid that, in a solution of from 1 to 2 per cent , it destroys all organic life, while in a less concentrated form, from ½ to 1 per cent , though not affecting the development of yeast or mould, it yet completely arrests that of micrococci or bacteria It is a crystalline body, easily soluble in water and alcohol, and of an agreeable odor It coagulates albumen, and in concentrated solution it is a powerful caustic The author claims to have brought about rapid cure in cases of foul and callous ulcers, and holds that the acid, so far from causing irritation, suppresses that where it exists Against chancre, he believes it to be a remedy in no way inferior to iodoform Internally, in gastric catarrh and cancer of the stomach, amelioration of the symptoms has been produced, while in the gastric enteric epidemics to which children are liable, complete cure has ever been obtained It has been used internally also as a preventive of cholera, and, as a local [illegible]renciation, successfully against thrush —*Glasg*[illegible]cury and *Journal*

ANATOMY AND PHYSIOLOGY.

The Influence of Sex on the Coefficient of Resistance and on the Frequency of Dental Caries —Dr V Galippe considers that, generally speaking, the density of the teeth in women is less than in men It has long been recognized that pregnancy diminishes the density of the teeth, but Galippe considers that this aptitude for dental caries frequently coincides with puberty, and is accentuated by each succeeding pregnancy The cause of this he attributes, in common with Landouzy, to the lowered degree of alkalinity of the fluids of the body In this connection it is interesting to note the frequency of biliary lithiasis and of mitral stenosis, which seem to be closely connected with the genital life of the female

This diminished amount of alkalinity in the female seems to have two factors, the one dynamic or functional, the other organic or anatomical From the dynamic or functional point of view, the nutrition of the woman is retarded, from the anatomical or organic point of view, the blood of man contains more corpuscles than the blood of the woman, therefore, the fluids of the body in man are more alkaline than in woman To satisfy himself on these points, and as having a direct bearing upon the teeth, Dr Galippe made a large series of observations in hospitals upon the reactions of the saliva in pregnant and newly delivered women, and in nurses as well The result was that the saliva was found to be acid in a majority of the cases Another set of observations was between men and women in comparable conditions, where the saliva was less frequently alkaline in women than in men, and where it was frequently acid When the alkalinity existed, it was often so feeble as to be totally inadequate for the saturation of the acids which form in the mouth The elimination of carbonic acid is greater in man than in woman, it is nearly double at the period of puberty

Dr Galippe in one case observed the saliva become acid during menstruation, and accompanied by malaise Besides these local phenomena, during menstruation the impulse of the heart is stronger, respiration is accelerated, and the amount of urea diminished It is not to the frequent acidity of the saliva alone that this predisposition to dental caries is due As has already been said, generally speaking the teeth of women have a density that is inferior to those of men, that is to say, they contain less mineral matter, and therefore their coefficient of density is inferior Now, if we take the woman at the period of parturition we see how prejudicial this inferiority becomes

The pregnant woman who does not receive, by means of a special alimentation, the elements necessary for the formation of the different tissues which constitute the fœtus, and particularly the osseous system, may sustain her first labor, but if these pregnancies be repeated without special care and alimentation, by drawing upon her own economy, her pericliteral economy, we see a series of disturbances occur, of which dental caries is the most marked —*Gazette des Hôpitaux*,—Feb 10, 1885

THE

Journal of the American Medical Association.

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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SINGLE COPIES	10 CENTS

Subscriptions may begin at any date The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible, remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, APRIL 4, 1885

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION—SUGGESTIONS FOR PUBLICATION

Thus far the JOURNAL of the Association has been published on the plan of annual contracts with the lowest responsible bidders The Board of Trustees has, prior to the annual meeting, obtained bids or estimates from several printing establishments in different cities, and awarded the contract for publishing the JOURNAL to the party offering the most favorable terms While this plan is theoretically economical it is practically attended by many embarrassments and losses The fact that the office of publication may be removed to another city at the end of the year, or the contract for printing be awarded to another firm in the same city, directly discourages many desirable permanent improvements For instance, no book-binder desires to make up and keep on hand a supply of covers for each volume to be furnished to members and subscribers at a mere nominal price, while the plan of publication may be wholly changed in a few months No publishing firm is quite willing to purchase and keep on hand type in Greek, Hebrew or other letter to be used, perhaps, not more than once or twice in the year, and no certainty that the contract will be renewed when the first year is out, unless they charge enough *extra* on some issue of the JOURNAL to cover the cost of such type And the same rule applies to many items, small in themselves but in the aggregate exerting much influence on the completeness of such a publication Again, contracts awarded on bids founded on certain specification, always leave many items that can be determined only by the exigencies of each issue For instance, the setting of statistical tables, and the use of type for certain paragraphs different from what the contract calls for must be paid for extra So, all matter kept in type from one week to another, whether composed of reading matter or of advertisements to be inserted only every second, third or fourth week, is subject to extra charge for *standing* type And as a large proportion of advertisers in a weekly journal desire to have their advertisements appear only once in two, three or four weeks, the charge for *standing* type on all such, materially reduces the profits on the advertising This can be only partially obviated by using stereotype plates, because each alteration in the text of the advertisement will require either a new plate or an alteration of the old one Another very decided annoyance, inherent in the annual contract system, is the absence of all direct control or supervision, on the part of the responsible editor, over the parties engaged in doing the various items of work The firm holding the contract may change their foreman on the average every ninety days, their proof-reader ditto, and half their folders and wrappers may be so heedless as to fold spoiled sheets or put wrappers on wrong side out on some copies of every issue, and the editor have no power to interfere while the contract lasts The evils and annoyances we have enumerated are inherent in the annual bidding and contract system They do not belong to Chicago alone, nor are they peculiar to the firm now printing the JOURNAL, but they would be encountered substantially the same in every city, and in the hands of every printing company, under the same system of annual bids and contracts This leads to the inquiry, whether there are any other methods of publication less objectionable, and if so, what are they? One other method which was suggested and discussed by the Board of Trustees at the beginning of its work, consists in the making of a more permanent contract with some well known and responsible medical book publishing firm in Philadelphia or New York

And there are now pending propositions, either directly or indirectly, from such firms in both the cities just named But each of these propositions embraces conditions which practically and effectually remove the JOURNAL from the control of the Association or of its board of trustees, and invest it in the publishing firm for a series of years And if, after it has served the purpose of conveying each week a knowledge of such publishing house and its publications to each member of the Association, the firm sees fit to return the mailing list to the Association at the expiration of their contract of five or ten years, the latter will be obliged to begin anew, just as destitute of resources as when the first number was issued in July, 1883 We cannot believe that such propositions will find favor with any member of the Association or of the Board of Trustees who comprehends the nature and extent of the interests involved If the object was simply to secure the publication of a good medical periodical, of which we have several excellent specimens already, the propositions might not be so objectionable But it should be remembered that the important objects intended to be accomplished by the publication of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION are, first, the early publication of the proceedings, addresses, papers and reports of the Association from year to year, second, the constituting of a medium of frequent communication with the whole membership by which its constitution, by-laws, ethics, and action on the important topics of medical education, legislation and sanitation should become better known, and its influence for good rendered an hundredfold more potent, both in and out of the profession To secure adequate attention to these special objects of paramount importance, the JOURNAL must be kept strictly under the control of the Board of Trustees appointed by the Association itself And the time has now come when the business or publication interests of the JOURNAL should be settled upon a more permanent and definite basis than heretofore First, the place of publication should be settled, at least for a term of years Second, the editor in chief or business manager should be authorized to purchase all the type and form fixtures needed for the publication of the JOURNAL, and establish, with the aid of a thoroughly competent foreman, a printing or compositor's room where all the work of publication, except the press work, should be done subject to his own general supervision, and free from the constant interference of other work and other interests We have now detailed and reliable estimates which show that such an office could be established in this city, carried on by reliable parties having experience in all the details of the same kind of work, and make the cost of publication of the JOURNAL nearly $1,000 less annually than it costs under the present contract And the entire expense for type and outfit would not much exceed one-half of the amount thus saved during the first year

The office and outfit once established, the amount now paid for stereotyping advertisements, for standing type, and extras for getting special letter type occasionally would keep the stock of type good, and the stock in hand would be steadily increasing, until at the end of ten or fifteen years, when the paying membership had reached 8,000 or 10,000, the needed presses could be added, and the American Association would have as good a publication capital, and as important a journal as our British brethren now have as their result of twenty years' labor and accretion If the 3,000 and more members now receiving the JOURNAL pay their dues to the treasurer, the proceeds added to the receipts at the office of publication from subscriptions and advertisements will make a reliable income for the third year of publication of the JOURNAL of over $20,000 Allowing $12,000 as amply sufficient to pay the strictly publication expenses of the JOURNAL, and $6,000 for the whole editorial department, there would be left $2,000 for the current expenses of the association, without considering the important additions that are constantly taking place to the membership by application and the new members to be added at the meeting in New Orleans We say again, therefore, that the time has come when the location and plans of publication should be more permanently settled The $6,000 for the editorial department, more reasonably reliable for the future, would pay the assistant editor in Washington the same as heretofore, would pay from $2,000 to $2,500 to a competent literary editor, to give his whole time directly to the details of the editorial work, and leave from $2,300 to $3,000 to pay the business editor and the necessary correspondents Thus managed, and with control of its own publication office and materials, the JOURNAL could be published efficiently and creditably, and its resources increase from year to year *pari passu* with the growth of the association and the great social and educational interests of the profession We ask the serious attention of every member of the Association, and especially of every member of the Board of Trustees, to the foregoing considerations If wisdom and moderation prevails in the councils at the coming meeting in New Orleans, the JOURNAL and the Association will both continue to prosper and to exert a benign influence over the whole profession for generations to come But if the demands of a class of critics, who appear to think that a journal, in its first year, with the support of 2,500 patrons, should pay as large a corps of editors, and rival in quantity of matter and style of publication, a journal of twenty years' growth and a membership support of 12,000, be yielded to or adopted, the whole enterprise will be hopelessly swamped in debt before the end of the first twelve months

THE DANGERS OF CANNED GOODS

The State Board of Health has another field wherein it may work to advantage The following letter from a physician to the Chicago *Morning News* explains itself

> In view of the general belief, well or ill founded, of an early visit of cholera, it may not be amiss to indicate (apart from the deep dishonesty and rascality of the thing) one great danger and predisposing, if not certain, exciting cause I mean spoiled canned goods The danger is all the greater because it may be deftly concealed When canned goods spoil, the gases of decomposition may be liberated in volume sufficient to cause the ends of the can to bulge outward These facts are known and understood in canning establishments, and by simply making a hole in the cap the gases are withdrawn and the can again sealed Hence two holes in the can may be accepted as proof that the contents of the can had spoiled, and should therefore be rejected as unfit for use Unfortunately, these tests are no longer reliable A few days ago, on examining the inside of a recently opened fruit can, the contents of which had caused illness, I noticed a hole had been made in the side of the can from without inward It exactly resembled the hole in the cap On removing the label the soldering was plainly visible, but while the label was entire it could not be felt on the outside, so carefully was it done This hole in the side, so smoothly soldered and covered by the label, was used to pump out the gases of decomposition (for the contents had spoiled), and so allow the ends of the can to again fall into their original and proper level, as well as to remove all chance of rattling of the contents from pressure Besides, there was only one hole in the cap The only means which can afford the public proper protection against such heartless frauds are to compel the canner to stamp his name and the date of canning on the tin, and to forbid all wrappings or labels which might hide from view any part of the can Meantime the Board of Health should keep a sharp lookout

Cannot the State Board of Health and the Health Officers of the city make arrangements by which it will be disadvantageous to manufacturers to resort to these unwholesome methods?

CARBOLIC ACID AND TYPHOID FEVER

Such is the title of an article in the February, 1855, number of the *Archives Generales de Medecine*, by Albert Robin, an article valuable in that it shows that the administration of carbolic acid in certain infectious diseases, particularly typhoid fever, is worse than useless, and also showing the value of a knowledge of chemistry as applied to therapeutics

If we analyze a large number of cases of typhoid fever treated by carbolic acid, it is found, says Robin, that the antithermic effect is the only one which really justifies its use Even then the depression of temperature is only temporary, and to maintain this it is necessary to prolong the action of the drug for a long time—ten to thirty days But even the partisans of the carbolic acid treatment report 1 Nervous symptoms, such as ataxic phenomena, convulsions, chills, trembling, etc, 2 pulmonary complications, 3 colics, nausea and vomiting, 4 profuse non-critical sweats, which are useless or dangerous, 5 symptoms of profound intoxication, with retarded respiration, frequent, small, depressible pulse, cyanosis of the extremities, collapse and sudden death, 6 secondary chachectic symptoms Though it would seem that these complications should be sufficient to make one hesitate in using the acid in these cases, its strongest partisans maintain that they are due more to the disease itself than to the remedy, and that the same complications are seen in cases treated by other methods Here the discussion has rested for some time, but Robin believes that he has now shown conclusively that carbolic acid is detrimental to the organism in typhoid fever, at least

His first proposition is, that "carbolic acid used in a continuous manner, and in large doses, exerts a disorganizing action on the chemical composition of the liquids and organic tissues, by destroying the elements of highest importance to the constitution" It is well known that carbolic acid is eliminated by the urine, and that its quantity is in direct relation with the amount of vegetable ingesta, that it is one of the products of the putrefaction of albuminoid matters, so that the degree of decomposition going on in the body of a person who is taking no vegetable diet may be ascertained by the amount of carbolic acid in the urine Munk gives the daily quantity of phenol eliminated in a state of health, on an animal diet, as 0 gr 0011, Brieger gives it as much more 0, gr 0150, Robin gives it, as the result of four experiments, as 0 gr 0079 But observations in five cases of typhoid fever, the patients being fed exclusively on an animal diet, showed that the mean was 0 gr 0304, from which it is easily seen that the production and elimination of carbolic acid in typhoid fever is far above that in the state of health Whatever carbolic acid is excreted entails a parallel elimination of sulphur and potash, thus still further impoverishing the organism, since these substances are directly removed from it Therefore, since in typhoid fever a double amount of carbolic acid is eliminated, the same proportion of sulphur and potash must also be lost, and as the patient cannot repair his losses, a daily deficiency results, which, if repeated for a long time, must be of very great disadvantage to the patient This impoverishment is caused by a process natural to the disease, and should be included as a factor in the genesis of the troubles of nutrition so frequently observed during convalescence

These things being true, it is necessary to know what goes on in the organism when carbolic acid is administered internally The oxidation of the acid is less active in typhoid fever than in a state of health, though it cannot be concluded from this that there is a diminished general oxidation in typhoid fever Robin shows conclusively that the demineralization of the organism, by the removal of sulphur and potash, is one of the consequences of the typhoid state, and that it is considerably increased by the administration of carbolic acid A calculation will show that the continuous administration of the acid will soon cause a loss of 23 per cent of the total quantity of potash contained in the body, and the same calculation may be made as to the loss of sulphur—two of the most important mineral ingredients How is the system affected by the loss of two of its principal histogenetic elements, the most indispensable to life? The animal deprived of its mineral salts is soon attacked with muscular feebleness and trembling, in the lower limbs this muscular feebleness takes the characters of a true paralysis, as though the cord were deprived of its functions The mental faculties are affected and excitability is heightened, and death supervenes with convulsive movements, respiratory troubles and visceral steatosis It certainly seems clear that any drug which may induce such results should be strictly proscribed in typhoid fever Not only this, but all the organic compounds which are eliminated in the same manner as carbolic acid should also be proscribed The following is an incomplete list of such compounds, most of which have been vaunted as antiseptics or antipyretics Creasol, paracreasol, metacreasol, thymol, naphtol, pyrocatechine, resorcine, hydroquinone, methylhydroquinone, pyrogallol, tribromophenol, orthonitrophenol, vanilline, vanillic acid, benzol, naphtaline

GOOD REMEDIES OUT OF FASHION

Such is the title of a most interesting paper by Dr Charles J Hare, delivered at the annual meeting of the Metropolitan Counties Branch of the British Medical Association in 1883 At first sight it would seem to a practitioner of "ye olden time" that in our race for new remedies, we are rapidly discarding those old friends which have been our sheet anchor, helm, sail and all for many years, and that the physician of the present day thinks that the more new remedies he discovers the greater will be his reward Undoubtedly many remedies, useful in past years, are now laid aside—a few have fallen into unmerited disuse—while others have been consigned to a merited oblivion Still others have been clothed anew, disguised under other and new names and forms, and find an honored place in our therapeutic tables

Dr Hare seems to lament the disuse of not a few of the remedies which made the reputation of some and saved the lives of others of our ancestors Among those which have found an unhonored grave he mentions opium, purgatives, venesection and dry cupping, leaving others to tell of the partial demise of tartarized antimony, blisters and gr xv doses of calomel If opium has fallen into partial disuse, it is only because morphine has taken its place, so much more efficient and powerful That purgatives are less used than formerly, we much doubt True, we do not administer ten grain doses of calomel in order to affect the biliary secretion, because we know that from one to five grains is a safer and more efficient dose Nor, do we think that epsom salts has found the oblivion that Dr Hare would have us believe? If there is a more efficient purgative than sulphate of magnesia, we have yet to find it, but it is not the only valuable purgative, nor is by any means the most pleasant The most important part of the paper under consideration is the lament for venesection Formerly, it is safe to say, at least twenty-five cases of severe illness in thirty were bled Now, not one in, say three thousand, and that is far below the mark There are still those, a diminishing few, who advocate its use, without restriction, in puerperal convulsions How do their statistics compare with the rational treatment of the present day? The answer is so well known that it need not be given

Of the almost forgotten remedies and therapeutic means in use fifty years ago, we may safely say that they are no longer used, because experience has taught us that there are other and better means of combating disease Formerly pneumonic patients were bled Did more or fewer recover then than under the present quinine and stimulant treatment?

RAILROAD FACILITIES TO THE ASSOCIATION MEETING

The passenger department of the Illinois Central Railroad Company has issued special notices that delegates to the Association, and their families and friends, who do not wish to return over this line, may purchase tickets at the company's office, 121 Randolph street, Chicago, to return over another route, either *via* Nashville, Louisville, Cincinnati or St Louis, at $5 in excess of the round trip rates over this line, thus affording a magnificent journey, during the day, from New Orleans to Mobile along the Gulf coast, passing through Pascagoula, Ocean Springs, Biloxi, Pas Christian and Bay St. Louis,—all quaint old towns, then north to Montgomery, through the mountains of Alabama, to Decatur, Nashville, Mammoth Cave, etc. In view of the fact that accommodations at New Orleans have been somewhat meagre and expensive during the winter, a special agent of the Illinois Central Company leaves Chicago on April 4 for New Orleans, in order to secure accommodations at more reasonable rates. These will be announced subsequently.

SOCIETY PROCEEDINGS

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting, January 7, 1885.

THE PRESIDENT, J. M. DA COSTA, M.D., IN THE CHAIR.

DR. WILLIAM PEPPER presented the specimens from and read the history of

A CASE OF ADDISON'S DISEASE.

H. P., 27 years of age, married, with a healthy family, was born and always lived in the mountains of Pennsylvania. He worked hard, and often, when in the woods hunting or lumbering with men stronger than himself, overtaxed his strength. On one occasion he hurt his back so badly as to lay him up for a week or so. He often wrenched his back in lifting heavy articles. He drank a little whisky, smoked a little, chewed to excess, and ate his meals rapidly, but for a man in his position his habits were good. He never had syphilis, and was never exposed to such depressing influences as worry and anxiety. There was no inherited family predisposition. He had the ordinary diseases of childhood, but was unusually well until the age of twelve years. At that time his stomach began to trouble him, and he noticed that indiscretions in diet caused dyspepsia, with its usual symptoms, which would disappear when the diet was regulated. As he grew older these symptoms of dyspepsia became more frequent and troublesome, and were often associated with spells of diarrhœa and colicky pains in the abdomen. Between the attacks the bowels were regular.

During the past six years his strength gradually failed and for a year he had been unable to follow his accustomed vocation. For three or four years he had had a pain between the shoulders, which, however, was not very troublesome. During the past few months the dyspepsia had been almost constant, and more troublesome, and in addition there was a continual distress and pain across the stomach, running through to the back. There never were spells of vomiting with the dyspeptic symptoms, and during all this time the appetite was uniformly good. Two and a half years ago he noticed that his color was darker than usual. This he attributed to exposure to the sun, and during the following winter the discoloration grew less distinct, but it returned with the return of spring, and last winter, instead of growing less, the color became more intense.

Upon entering the wards of the Philadelphia Hospital, October 1, 1884, he thought that the color of the cheeks was lighter than it had been six months before. The general condition had failed no more since the appearance of the discoloration than it did before. The notes upon admission state that he was apparently a well-nourished man, with dark brown hair sprinkled with gray, the pupil of the right eye a trifle larger than that of the left (probably physiological). Last spring he came to the hospital to stay, but ran off in twelve hours, stating that he could not stand the place. His mental condition is good, and he sleeps well. After eating he has a feeling of fullness in the stomach, and has a dull pain across the pit of the stomach and through into the back. This is aggravated by the presence of food, and is sometimes sufficiently severe to keep him awake. There is no tenderness, no nausea or vomiting. The bowels are costive, and since being more careful in his habits he does not have spells of diarrhœa as frequently as formerly. He has great weakness and a feeling of excessive muscular debility, and any exertion produces breathlessness, palpitation of the heart, and complete prostration. There are occasionally attacks of palpitation and short breathing even without exertion. The whole surface of the body is darker than natural, the discoloration being most marked on the face, where it extends from a little under the roots of the hair down over the neck to the line of the collar, and on the back of the hands, extending to above the wrists, where the color is at least as dark as the complexion of a mulatto. It, however, has not the yellow tinge of the mulatto, but is more of a mahogany tint, as though stained with walnut-juice. It is not uniform, but is distributed in patches with little intervals of lighter-colored skin. It is not at all affected by pressure, and is not bounded by a sharp line of demarcation, but fades gradually into the surrounding skin. The lighter colored skin is somewhat darker than the average. He states that the color deepens as the surface becomes cold. The finger nails are of the ordinary tint, and contrast strongly with the dark fingers. The mucous membrane of the inside of the lips is darker than natural, and scattered over it are irregular, sharply-defined purplish patches.

An examination of the blood was made by Dr. William E. Hughes, to whom I owe this admirable history. The number of red globules was 5,130,000 to the cubic millimetre. There were 9,000 white corpuscles to the centimetre, or one to 560 red. The red globules were a trifle smaller and a little paler than normal, and some of them deeply pigmented. The white were normal in size, some containing pigment granules, and some deeply pigmented. There were also some free pigment-granules. I must add that his temperature was normal, or even below normal, as a rule, though on one or two occasions there was a rise to 99½° or even 101° or 101½° for a few hours, apparently due to gastric irritation.

He was confined to bed. His diet was carefully regulated, and was varied from time to time to suit the failing powers of the stomach. For the most part it consisted of milk. Several applications of the actual cautery (Paquelin's) were made over the renal region posteriorly. Internally, he took aromatic spirits of ammonia, which proved an acceptable and useful stimulant to him. He lost strength steadily and quite rapidly, and from the date of admission, October 1, to the date of death, November 18, he lost twenty pounds,—from one hundred and twenty-four down to one hundred and four pounds. The pulse grew feeble and rapid. There were from time to time unaccountable sudden failures of appetite and digestive power. He was very lowspirited, and complaining constantly of distress and of inability to sleep quietly. Vomiting occurred occasionally during the last three weeks of his life. The pulse was barely perceptible at the wrist for two weeks before death. The discoloration grew somewhat darker toward the close. For the last forty-eight hours he was profoundly unconscious.

In the preliminary dissection the right supra-renal was found firmly attached to the under surface of liver and to the side of inferior cava. No special thickening about its outer surface, but there is a fine capsule of fat. On attempting to separate the kidney and supra-renal from the liver, firm fibrous union is found. The cardiac end of stomach is attached to the enlarged left supra-renal, and the spleen and tail of pancreas are closely united to it. Kidneys, supra-renals, spleen and retro-peritoneal tissue taken out together for dissection.

Kidneys, of average size; color good, except immediately beneath enlarged capsules, where the tissue is soft, and many of the tubes are fatty.

Intestines: cæcum and colon full of firm, hard scybala; ileum normal; Peyer's glands distinct; two inches from cæcum one long patch begins which measures six inches in length, and presents in a typical manner the shaven beard appearance; the solitary glands are a little swollen and prominent. Bladder is full of urine; the mesenteric glands not swollen; the mesentery is very fat. No swelling of ribs, clavicles, or any of bones noted.

Spleen, slightly enlarged; closely united to diaphragm and left supra-renal by old adhesions; pulp of medium consistency.

Lymph-glands: some of the lymph-glands of the abdomen, particularly those of the mesentery and retro peritoneal, are swollen, grayish-red in color, and several of them contain grayish, translucent nodules, with opaque centres, looking like small tubercles; some as large as peas, and the centre distinctly caseous.

Supra renals: the right is closely adherent to the kidney, diaphragm and inferior cava, and to the liver above. It is two and a half inches in length, one and three-quarter inches in vertical diameter, and rests upon the top of kidney, not descending into the hilus. It is exceedingly hard and firm, and on section shows a peripheral, dense, grayish-white, partially translucent tissue, and centrally three or four yellow, caseous masses, separated from each other by strands of fibrous tissue of almost cartilaginous hardness.

Left capsule. Is much larger; covers the top of kidney, and descends on its inner surface well into the hilus, measuring three and a quarter inches in length, two inches vertical, and two and a half inches in thickness. The lower end of the spleen is firmly united to it, and tail of pancreas is also attached to it. The splenic artery and vein run along its anterior surface in the thick, fibroid, fatty tissue, and at one point the calibre of these vessels is very materially reduced.

The mass is extraordinarily firm, cuts with the greatest resistance, and presents identical characters with the right, except that at the most anterior region there is a pocket of creamy looking pus, and at a central spot the caseous matter has undergone softening. At the most anterior part, close to the cœliac axis, the left semilunar ganglia is directly embedded in the fibrous tissue, and can be seen as a rounded grayish mass about one-quarter inch in diameter, and three small nerve fibres can be seen passing from the ganglia in the dense tissue about it.

Semilunar ganglia. The splanchnics look normal, and can be traced directly into the semilunar ganglia; as the right passes on the crus there is a small ganglion developed upon it; it is free from all adhesion; the branches are readily dissected and look normal. The left semilunar ganglion is directly involved in the fibrous tissue of the suprarena, as stated above; the nerves of the left ganglion, as they pass out, are involved in the cicatricial tissue of the left suprarenal capsule, and cannot be dissected, but can be seen on section; several filaments can be traced to the branches of the cœliac axis.

At the concave margin between the two lunar ganglia there is a small dark-yellow body, probably a supernumerary adrenal. A bunch of normal-looking nerves passes from the right directly to the left semilunar ganglion. The branches passing to the right suprarenal can be traced in the fat and along the artery; they are neither numerous nor large.

Miscroscopic Examination. Left semilunar ganglion. Teased portions from the centre of it show innumerable ganglion cells, most of which are very darkly granular, but the nuclei and in places the nerve-processes can be distinctly traced; nerve fibres, medullated and non-medullated, are numerous, and in many places show remarkably slight change; in some cords the fibres are less distinct, fat granules numerous, nuclei elongated, and the process of disintegration appears to be going on. In sections the ganglion cells can be seen separated from each other by a considerable amount of nucleated tissue. In places they are still closely set together, but in others they are in a great part atrophied, and only one or two can be seen in the fibrous connective tissue, being recognized by the dark granular pigment. The section showed the nerve-fibres through the hard sclerotic tissue, and the chief change noticeable is a marked elongation of the nuclei, and, indeed, a multiplication of them.

Right semilunar ganglion. The cells are very readily issolated; the nuclei distinct, and in each instance surrounded by tolerably dense, dark, pigment-granules, the nerve fibres appearing normal.

Several portions of nerve fibres passing out from the right semilunar ganglion were examined, none of which showed any special change, the cord of the thoracic sympathetic and the ganglia normal, the cells of the latter moderately pigmented.

Marrow from rib. It is dark-red in color, does not look fatty, and presents the characters of ordinary red marrow, many of the colorless cells are very granular and of average size, no great number of small ones, nucleated red blood corpuscles tolerably abundant, no cells containing red blood corpuscles.

Marrow of vertebra. Rather more fatty, of a deep, rich color, and differs further from the fact that it contains a number of cells containing red blood-corpuscles, in places these are extraordinarily numerous and large.

Heart muscle of left ventricle in a state of brown atrophy, a few of the fibres present fat-granules throughout them.

Spleen pulp. In addition to the ordinary elements there are also very humorous corpuscles containing red blood-corpuscles in all stages of degeneration.

It will be seen that this case was a very typical one of Addison's disease, both as to its clinical symptoms and as to the lesions present. The absence of anæmia is shown by careful examination of the blood, indicating that the main cause of the symptoms was to be sought in connection with the sympathetic nervous system, and the extensive and positive lesions carefully made out by Prof. Osler in this case fully confirm this view. Undoubtedly in many cases of Addison's disease the chief cause of the symptoms is to be found in such nervous implications and lesions, but in other instances it is clear that there is a progressive anæmia associated which must play a part in causing the symptoms. In cases where the exudation in the capsules undergoes cheesy degeneration with absorption of the disintegrating organic materials, it is not improbable that there may also be an element of sepsis which would aid in inducing cachexia, even if it did not lead to tuberculosis, which, as is well known, not rarely appears in the late stage of Addison's disease.

The frequent allusion to severe strains or injury of the back in the history of this case suggests the possible origin of the disease of the capsule from repeated irritations caused by violent muscular strain or by sudden shocks to the frame. It will be noted that in a considerable proportion of cases this disease has arisen in subjects liable to such causes as the above.

DR. FREDERICK P. HENRY remarked that this was undoubtedly a genuine case of Addison's disease, and remarkably free from the frequent complications of that affection. The rarity of Addison's disease in this country may be judged of by the fact that in the eleven volumes of the Transactions of the Pathological Society of Philadelphia there are reports of only two cases, and these were made by Dr. Henry, in whose practice they occurred. They are to be found in Vols. V and X. The specimens from one of the cases are now in the museum of the Episcopal Hospital. Dr. Hughes' report upon the condition of the blood in this case is very interesting. Most writers upon Addison's disease are accustomed to attribute the profound adynamia so characteristic of the affection to a high degree of general anæmia, in spite of the absence of any facts to support such a theory. This adynamia is due to an insufficient supply of blood, although of good quality, to the supra-diaphragmatic portion of the body, the result of an accumulation of blood in the abdominal blood-vessels caused by vaso-motor paralysis. Free pigment in the blood has only been once before observed, so far as the speaker is aware, by Van den Corput (*Gaz. Hebdomadaire*, 24 Juillet, 1863). The changes observed in the sympathetic ganglia are of undoubted interest, but it must not be forgotten that typical cases of Addison's diseases have been observed without perceptible lesion of these ganglia. Eulenberg and Guttmann (*Journal of Mental Science*, January, 1879) have collected twenty cases in which changes were found in the nerves of the supra-renal plexus and the ganglia of the solar plexus, opposed to which they place twelve cases in which careful examination demonstrated no change whatever. The positive observations included fatty degeneration (found by Queckett in one of Addison's original cases), swelling and redness of the nerves of the lesser splanchnic and ganglia of the solar plexus, atrophy, pigmentation of the ganglionic cells, increase of connective tissue in the ganglia and in the neurilemma of the nerve-fibres, and caseation of the semilunar ganglia.

Primary affections of the abdominal sympathetic has been appealed to as a cause of numerous other affections, notably of Bright's disease, by Drs. Da Costa and Longstreth, on the basis of careful microscopic examination of the ganglia in nine cases (*Am. Jour. Med. Sci.*, July, 1880). The accuracy of their description of the condition of the ganglia has been confirmed by Dr. Robert Saundby (*Brit. Med. Jour.*, January 13, 1883), whose observation has been still more extensive (fifteen cases), but he entirely dissents from their conclusion as to the primary nature of the sympathetic affection, and points out that similar changes have been found in the ganglia in diffuse eczema, pseudo-hypertrophic muscular paralysis, pernicious anæmia, glio sarcoma of the brain, general paralysis of the insane, cholera, and diabetes. He points out in conclusion that Giobanni (*Patologia di Simpatina*, Milan, 1876) "found cellular infiltration of the sympathetic ganglia in an immense variety of visceral and general diseases, showing that structural changes in the organs are very generally accompanied by signs of irritation in the ganglia."

It is not necessary, however, that there should be a destructive lesion of the solar plexus and semilunar ganglia in order to produce vaso motor paralysis of the abdominal vessels. Irritation of a sensory nerve produces vaso-motor paralysis in the irritated region, and the well-known experiments of Goltz (*Kopfversuch*) have shown that irritation of the intestines produces complete vaso-motor paralysis of their blood-vessels, causing thereby so great an accumulation of blood that the animal shows symptoms of syncope, the same as if it had been bled copiously. In Addison's disease, from the beginning of the morbid deposit in the medullary substance of the supra-renal capsule, an irritation is transmitted to the semilunar ganglia and solar plexus, by which means a vasomotor paralysis of the abdominal vessels is produced, as in the experiments of Goltz This constant hyperæmia leads to enlargement of the glands of Brunner, the solitary glands, and Peyer's patches, so constantly met with, and, when more intense, to catarrh and ulceration of the intestinal mucous membrane It also accounts for the dark color of the liver, spleen, kidneys, and pancreas so often observed, as well as for the brown color of the peritoneum sometimes noted, notably in a case of Severini Indirectly it explains the anæmic and dry condition of other parts of the body, and fully accounts for the symptoms of muscular weakness, syncope, and gastro-intestinal disturbance,

In the case under discussion no mention is made of the size of the heart, which is noted as being small in numerous autopsies and the seat of fatty degeneration in several On account of the abdominal hyperæmia, the quantity of blood reaching the heart at each diastole is less than under normal circumstances, and thus the invariable weakness, smallness and softness of the pulse are explained The heart is never normally distended, and thus its cavity becomes permanently diminished On account of these heart changes the abnormal distribution of the blood due to the abdominal hyperæmia is still further facilitated Anæmia of the central nervous organs explains the dizziness, tendency to somnolence, lassitude, and lowness of spirits so often observed, also attacks of prolonged prostration and loss of consciousness, with convulsions, sometimes a condition of collapse that has been compared by Wilks to that of cholera All the nervous symptoms of Addison's disease are not, however, to be explained by the theory of cerebral anæmia such, for example, as restlessness, sleeplessness, psychical disturbances, clonic spasms in various muscle groups, and sensory and motor paralyses In such cases there is probably irritation of a cerebro spinal vasomotor centre, causing local hyperæmias of the central nervous organs There are two paths by which such a reflex action may travel 1, through the cœliac axis and its connection with the medulla spinalis, 2, through the branches of the phrenic and pneumogastric distributed to the supra-renal capsules, and the degree of this irritability probably varies in each individual

In connection with the abnormal deposit in the skin in Addison's disease, certain observations of Thudichum are of great interest For sixty five consecutive days he examined the urine of a patient of Dr Burdon Sanderson Without complicating fever or diarrhœa, there was a great diminution in the daily amount of urine excreted the sp gr was 1020 and upward, and the reaction acid The observations were chiefly directed toward the determination of the percentage of uromelanin, omicholin, and uropitin, three products of decomposition of urine-pigment, of which the first is the most important It has almost the same chemical composition as the melanin of the choroid and of the melanotic tumors, and like the pigment in the skin, is iron-free Thudichum found these pigments greatly reduced in amount, the uromelanin never rising above one-twelfth the normal The speaker has been unable to find any record of a spectroscopic examination of the pigment deposited in the skin in Addison's disease, and would suggest the importance of such examination being made There is an iron-free product of decomposition of hæmoglobin, namely, hæmatoporphyrin, which is iron-free hæmatin, the absorption-bands of which are figured in Hermann's "Handbuch der Physiologie," Band IV, Theil I It would be interesting to compare the absorption-bands of these two iron-free pigments, both of which have their origin in the coloring matter of the blood It is evident that the diminution in the amount of urine-pigment may be in relation to the excess of pigment in the skin The observations of Thudichum await further confirmation

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CHICAGO MEDICAL SOCIETY

Stated Meeting, March 16, 1885

Vice President, C T Fenn, M D, in the Chair

Dr D R Brower read a paper on

LOCOMOTOR ATAXIA, ITS DIAGNOSIS AND TREATMENT IN THE PREATAXIC STAGE

[See page 373]

Dr H Gradle inquired whether the preataxic stage may not be another disease from true locomotor ataxia, or whether the symptoms may not really be due to a separate disease He referred to the case in which Langenbuch (he believed), in 1875 or 1876, stretched the sciatic nerve, the result being a cure of the patient This patient subsequently died of some other disease, and the autopsy showed that the posterior root-zones were perfectly healthy

Dr G C Paoli stated that but few cases of stretching the sciatic nerve for any form of difficulty resulted in recovery or benefit to the patient As regarded syphilis being the most frequent cause of the disease, his own experience led him to think that it was not Duchenne has said that masturbation is the cause of the greatest number of cases, and he was the first writer to announce this The speaker said that from his own observation he believed this to be true, when, for example, a person commences this practice in youth, and continues it for a long time, he is liable to be stricken with the disease The first symptoms that he had noticed were exhaustion of the nervous system, muscular fatigue, and scarcely any pain No doubt syphilis is a cause of the disease when the patient has not received proper treatment, the improper use of mercury may cause it It occurs in the lowest classes of society, among those who live in damp, ill-ventilated apartments To give iron freely in this disease will produce intestinal derangement, it may, however, be given in small doses with iodide of potassium, and the methods suggested by the reader of the paper might be followed with advantage

Dr Robert Tilley thought the subject of the preataxic stage a very important one, it may extend over a period of thirty years, and it is therefore difficult to determine whether it is a separate disease or not So far as the literature of the subject is concerned, he thinks that syphilis is by far the most frequently mentioned cause One symptom of the preataxic stage, which was not mentioned by the author of the paper, is the difficulty experienced by the patient in walking backward In the case of a lady who had come under his care, and who had incipient locomotor ataxia, when she stooped forward she was obliged to keep her eyes open, she could not stand still or erect with the eyes shut Regarding the inability to distinguish colors (green or red) in the early stage, this does occur He could corroborate the statement that hot baths are very injurious, the same is true of the Turkish bath, a patient will sometimes lose consciousness while in the hot room where the bath is being taken He could not think that the disease is ever caused by a too free use of mercury

Dr Brower said that he had never seen a report of Langenbuch's case, referred to by Dr Gradle, but he had heard it spoken of by others, whether it was a case of true locomotor ataxia he was not prepared to say, and if so, whether there was perfect regeneration of the posterior root-zones Where there are marked reflexes, degeneration of the root-zones will follow, and it is not in accordance with our ideas of pathology to believe that a degenerated portion of the cord may regenerate There is a great deal of uncertainty as to the pathology of the disease, some regarding it as a neuritis, others as of cerebral origin He looks upon it as a sclerosis of the posterior root zones He could not agree with Dr Paoli that masturbation may cause locomotor ataxia or any organic disease, though it may cause functional troubles As to the phenomena and difficulties which a patient experiences in walking backward, he thinks these rather exceptional, he has had patients who could walk backward or stand with the eyes closed with perfect equilibrium He closed by saying that he had hoped to hear some discussion on the principal point in his paper, the treatment by long continued rest, either in the dorsal or lateral decubitus

Dr E F Ingals read a paper entitled

PARACENTESIS AND DRAINAGE IN THE TREATMENT OF EMPYEMA

After referring to the various methods of operating, with the aspirator, free incision and sudden evacuation of pus, the exsection of one or more ribs, etc, he stated that a large ratio of fatal cases, in which the radical operation had been performed, is due to the operation itself in some of its forms This, however, should not be taken as an argument against any operation whatever being performed, for recent statistics show that a much larger percentage of patients recover under operations than when left to themselves A good result will more frequently follow the operation which will empty the cavity slowly, and at will, and at the same time keep the cavity thoroughly disinfected Aspiration will not meet these requirements completely in many cases, and it is therefore necessary to perform a radical operation so that free drainage may be obtained, but the radical operation is best preceded by aspiration, withdrawing the pus several times if necessary, in order that the lung may expand and the chest walls contract to such an extent that all the fluid may be removed at one time, without causing the distressing sense of compression of the chest and suffocation When this has been done the operator should wait a few days, in order that the cavity may partially refill, the operation for permanent drainage should then be done

To secure proper drainage and prevent the loss of the drainage tubes in the pleural cavity, the tubes should be prepared as follows A piece of the best rubber tubing, two feet long and nearly a quarter of an inch in diameter, with a calibre of an eighth of an inch, should be selected This is cut half through near its middle, so that when folded the two pieces are fastened together at a point about one and a half inch from the cut place, with a silk suture, this is tied on the inside of the perforated tube, and keeps the two pieces in the same relation to each other, and thus prevents one of the annoyances incident to the use of tubes which are not thus fastened One portion of the tube should be perforated about half an inch from the cut, the other portion in several places, extending from near the cut for three or four inches along that portion which is to hang within the chest As a matter of convenience the outer ends of the tube are tied tightly, so that pus will not escape through them while they are being introduced The tubes should be carefully measured, so that it may be known afterward just how far they extend into the cavity The difference in the length of the ends of the tube enables the operator to know which is the perforated portion, a matter of importance in the subsequent treatment

Immediately before the operation an aspirator needle or a hypodermic syringe may be used, so as to avoid making an opening where adhesions have bound the pleural surfaces together, and to ensure that the cavity is entered An incision about one-fourth of an inch long should be made through the skin, through which a broad flat trocar is plunged into the pleural cavity, this makes an opening sufficiently large to allow the easy passage of the two drainage tubes, which should be introduced as quickly as possible after the canula is withdrawn By introducing the tubes quickly and carefully the entrance of air is prevented, and the tissues will contract closely about the tubes A piece of sheet rubber, about three inches square and with two small openings near the centre, is then slipped over the tubes down to the chest wall, where it will act as a valve to prevent the entrance of air in case the tubes should become loosened In addition to these precautions, to secure the tubes perfectly, a section of the same tubing, half an inch long, through which have been tied two loops of strong cord, is slipped over each piece of drainage tube by the aid of the canula, this is carried down close to the chest wall, and fits the tube so closely that slipping is impossible Long strips of adhesive plaster are then passed through the loops and around the chest, the tubes being thus placed perfectly under control, over the whole is placed a bandage, between the folds of which hang the drainage tubes, which are then opened after long pieces of glass tubing have been attached to them The pleural sac is washed out with a 2 per cent solution of carbolic acid at 101° Fah, first through one tube, then through the other, until the cavity is clear of pus, after this procedure the ends of the tubes are folded upon themselves and tied, so that they are hermetically sealed The subsequent clearings should be made two or three times a day After two or three days the physician need not call oftener than twice a week in order to satisfy himself of the necessity of any change in the injection for the purpose of securing perfect obliteration of the sac, the washing out of the cavity may be done meanwhile by the friends of the patient

About two weeks after the operation one of the tubes may be left open, connected with a long rubber tube which itself opens into a bottle which the patient carries in his pocket In old cases of empyema, in addition to the above described method, resection of one or two ribs may be necessary in order to cause complete closure of the cavity, but the patient's chances for recovery are greatly enhanced by adopting the first method It may be said in conclusion that this method possesses the following advantages

1st It may be quickly and easily performed without an anæsthetic

2d It enables us partially or completely to empty the chest, being governed by the effect it produces upon the patient

3d It is free from one great risk incident to free incision into the chest, viz as a result of the sudden evacuation of pus and the free entrance of air, as many patients die from the operation within a few hours

4th Air may be excluded from the cavity for several days if care is used, or at most but a few bubbles may enter if the tubes are opened under water

5th The drainage tubes are securely held and cannot slip into the chest

6th The opening is closed so snugly as to almost wholly prevent the discharge of pus except through the tubes, thus enhancing the comfort of the patient

7th As a nurse may readily cleanse the pleural cavity, the subsequent treatment is rendered much simpler and easier than where a free opening has been made

8th In chronic cases where resection of a rib or of portions of several ribs may be necessary, this is the best possible preparation of the patient for that operation

9th Eighty per cent of the patients operated on in this manner will recover

Dr James E Taylor, of New York, being invited to participate in the discussion, related a case to which he had been called in consultation some two years ago The patient was cyanosed, and had all the symptoms of empyema As but one method for his relief seemed to offer itself, a trocar was plunged into the pleural sac and four quarts (about) of pus were evacuated The patient did well, and in a few days was able to take a journey of some three or four hundred miles The operation was repeated in about ten days, and the patient ultimately recovered entirely He believed that the loss of a drainage tube in the pleural cavity was usually the result of want of care on the part of the operator, and an accident of very great gravity

Dr Robert Tilley referred to the jacket arrangement, the lacing on of a jacket after the operation for the purpose of compressing and supporting the chest walls

Dr H J Reynolds wished to know between which ribs Dr Ingalls thought it best to operate?

Dr Ingals thought that lacing has the same effect or is analogous to tightening a bandage on the abdomen, but that a plaster jacket is obviously unsuited for making continuous pressure on the constantly moving chest wall He thought it best, as a rule, to operate between the sixth and seventh or the seventh and eighth ribs, but the opening should be made high up on the chest

Dr C G Davis then read a paper on

HYPNOTISM

Many functional disturbances of the nervous system have long been sources of mystery A peculiar condition of the nervous system, known and designated by various writers as mesmerism, electrobiology, clairvoyance, animal magnetism, odylic or odic force, hypnotism, etc, has, as far back as the history of mankind extends, attracted the attention of the scientific, and excited the wonder of the seekers after the mysterious and supernatural

The reader then reviewed the customs in olden times, when it was claimed individuals cured diseases by this mysterious power He said pretenders have arisen from time to time who have used the phenomena for deception and for mercenary motives After alluding to the theory of animal magnetism, and classifying Mesmer as a charlatan, Dr Davis asks

Now, what is magnetism? Much has been said and written on this subject At one time the popular tide of belief in its reality has run high, and again the waves of scepticism have swept over it, and for a period almost hid it from view But today we may consider it as having been tested in the scientific crucible, thoroughly established, and well worthy the attention of the medical profession The subject may be considered a piece of mechanism of peculiar construction, capable of certain unusual conditions and movements, which only await the bidding of the operator to be set in motion Hypnotism in many respects resembles somnambulism I have observed that the somnambulist has usually yielded most readily to an effort to produce the hypnotic condition In both somnambulism and hypnotism we find the individual performing what we may term unconscious cerebration There is to a certain degree, undoubtedly, a temporary suspension of the controlling, inhabiting power of the cortex Whether this disturbance of the normal equilibrium between the various encephalic centres is purely dynamic in its character, vaso-motor, or partially both, is not yet fully determined However, as it is almost impossible to conceive of any organ of the body engaged in its functional activity without an increased supply of the blood, I am inclined to believe that the vaso-motor condition plays an important part How may hypnotism be produced? It is an admitted fact that all persons are not equally liable to the hypnotic condition With a sensitive subject, a prolonged stimulation of any sensory nerve in close proximity to the brain, together with a concentration of the attention on one idea, is usually sufficient to bring about the condition within a few minutes By the prolonged stimulation of the sensory ganglion some portion of the cerebral hemispheres becomes, as we suppose, exhausted, possibly anæmic We shall be better able to describe this condition when our physiologists are more prepared to answer the question, "What is inhibition?"

From observation and experiments we arrive at the conclusion that hypnotism is a fact, an unusual physiological condition brought on by a perverted action of certain parts of the encephalic centers It affords a rich field for investigation, and in the hands of skillful men so powerful a method of influencing the nervous system should certainly be utilized for remedying disease The German physicians, as is the case in many other avenues of medical thought, have probably done more than all the rest of the medical world in establishing hypnotism as a therapeutic remedy Dr Berger, of Jena, has reported a number of cases of spasmodic trouble and of hysterica-mania relieved by putting the patient into the hypnotic sleep Dr L E Fisher also reported similar cases in 1883 Dr Creutzfeldt, assistant to Professor Preyer, reported cases cured in the same manner The statement had occasionally been made that only individuals possessing diseased nervous systems were capable of entering the hypnotic state This I do not believe, I am, however, more inclined to the opinion that every living being is to a certain extent capable of being hypnotized, there being of course a wide difference as to susceptibility

M Brimond has recently made a large number of experiments on soldiers and sailors from 14 to 26 years of age, and proven positively that the phenomena of lethargy, catalepsy, and somnambulism may be periodical in healthy non-hysterical people (*Med Record*, March 22, 1883) We know also that by the prolonged stimulation of some sensory nerve we are capable of producing a condition similar to hypodism in many of the lower animals This I have often produced when a boy for my own amusement in chickens, dogs, cats, etc By means of the sphygmograph, the myograph, and the pneumograph hypnotism is proven It stands out as a scientific fact, and is full of rich resources through which we may study more closely the psycology and physiology of the human brain Every year finds the scientific world in possession of new facts illustrating the wonderful influence which the mind has over the body

After reading his paper, Dr Davis introduced three subjects in illustration of the cataleptic, somnambulistic and lethargic symptoms of mesmerism In each case the pulse was found to be considerably accelerated within a very short time after the patient had entered the state The cataleptic limbs were perfectly rigid, remaining in the position in which the operator placed them, they could be moved but little, and invariably recoiled to that position when the force brought to bear in moving them was expended It was thought by some that there was a material difference between the subject in hand and the others While under the mesmeric influence, they obeyed every command of the operator

Drs G C Paoli and W E Clark stated that they had no faith whatever in such exhibitions

Drs Moyer, Angear, J H Etheridge, Tagert and Reynolds spoke rather hesitatingly on the subject, and were convinced that the subjects were not "professionals," from their knowledge of Dr Davis, and of his sincerity and candor, and they were certain that he would not knowingly exhibit actors in illustrating his experiments

Dr Davis, in closing the discussion, said that hypnotism contains the germ of scientific truth, and that any one who asserts that there is nothing in it only shows that he has not studied the literature of the subject He did not claim to account for the hypnotic phenomena, but would again assert that it is pure science [The Secretary, Dr Liston H Montgomery, has taken pains to seek out one of Dr Davis' subjects since the meeting of the Society He stated that he had never been hypnotized before, and that he was willing to make oath to this effect before a notary public —Editor]

FOREIGN CORRESPONDENCE.

PARIS LETTER

(FROM OUR OWN CORRESPONDENT)

The Physiological Action of the Sulphate of Cinchonamine—A New Method of Treating Intestinal Obstruction—A New Clinical Thermometer

Professor Vulpian lately communicated a note to the Academy of Sciences, in the names of Professor Germain Sée and Dr Bochefontaine, who had made a series of experiments to determine the physiological action of the sulphate of cinchonamine, the following are the conclusions arrived at by these gentlemen Cinchonamine appears to have a powerful action on the heart, and it was observed that arrested action of the heart was an almost constant phenomenon resulting from the influence of that alkaloid This occurs during diastole, a special feature which characterizes only a limited number of poisons, of which muscarine is an example But when a drop of a solution of atropine was allowed to fall on the heart, the diastole was replaced by systole, whereas the effect of cinchonamine was to provoke persistent diastole Sée and Bochefontaine proved that cinchonamine is a most violent poison, but that its effect is not easily determined

Dr A Chantemesse recently made a very interesting communication to the Clinical Society of Paris on a new method of treating obstruction of the intestines The author related the case of a man, aged 59 years, who was admitted into Professor Bouchard's ward at the Lariboisière Hospital, on the 5th of January last, with marked symptoms of intestinal obstruction, such as tympanites, intestinal contractions perceptible during palpation of the abdomen, fæcal vomiting, and anuria There was complete retention of the alvine evacuations, the patient was in an almost moribund state, and yet, as far as his bowels were concerned, he recovered completely in a fortnight, the following treatment having been adopted in the case Half a tumbler of Vichy water was introduced into the stomach by means of an India rubber tube (Faucher's), immediately after this, about 2 litres of a yellowish liquid, and of an offensive acid odor, was drawn off Soon after this, the swelling of the epigastric region diminished, and the patient felt considerably relieved There was, however, no movement from the bowels, which were much distended by gas and liquids On the second day of treatment, the same symptoms persistently, the washing out of the stomach was repeated, giving issue to about a litre of the same offensive liquid as before In the afternoon of the same day a purgative enema was administered, and the patient had a copious evacuation of a yellowish, fetid liquid from the bowels The pain and size were diminished on the third day, the vomiting stopped, and, after another purgative enema, several evacuations from the bowels were produced, the matter being scanty, yellowish and fetid After this the patient continued to improve, no other treatment was adopted beyond a little ice by the mouth, and on the twentieth day the symptoms of obstruction had disappeared, but another complication was discovered The buttocks of the patient were covered with small boils, the mouth was studded with aphthæ, and he was greatly emaciated

This case led Dr Chantemesse to make the following observations It is impossible to determine the cause of obstruction of the intestines He thought that the case under consideration was a good example of the intoxication of the organism by the absorption of intestinal matter in a state of decomposition, to which was evidently due the breaking out of the boils and aphthæ referred to As regards the therapeutic method employed to overcome the obstruction of the bowels, Dr Chantemesse acknowledges that it had been adopted for the first time by Kussmaul, and at the meeting of the Medical Society of Berlin, which was held on the 10th of December last, M Senator related three cases which, added to the four previously reported by Kussmanl, would make seven cases of intestinal obstruction cured by the washing out of the stomach

As to the rationale of this method, it is difficult to explain M Senator suggests that the beneficial result obtained by the washing out of the stomach was effected by the excitement of splanchnic nerves This explanation, however, is rather vague Dr Chantemesse is disposed to believe that the washing out of the stomach produces an effect analogous to that caused by the application of descending continued currents in the treatment of ileus, the result being probably due to prolonged intestinal contraction But whatever theory may be advanced, the favorable results that have been obtained in the examples recorded, although they are few in number, are sufficiently encouraging to justify the adoption of this new method in other cases

Having heard of a new clinical thermometer, which has just been patented by M Lucien Viallet, an enterprising commission agent in Paris, I determined to try it in order to bring it to the notice of your readers It is a straight, self-registering centigrade thermometer, and graduated to one tenth degree By a peculiar mechanism an entire absence of air space is effected, and there is a minute contraction in the stem, which, with every rising of the mercury, cuts off the entire column above it, thus forming an index of the temperature, this remains after the removal of the thermometer from the patient Each time the instrument is required, it must be shaken before it is applied again in order to make the mercury descend By this new system, the mercury would have only half the distance to descend, and thus require only half the time that is required by other thermometers, which is an immense advantage to busy practitioners, whose every minute is of value to them The new thermometer is put up in cases of German silver the length of which is 5 069 inches Any further information regarding this thermometer may be obtained from your Paris Correspondent A B

DOMESTIC CORRESPONDENCE

PHILADELPHIA LETTER

(FROM OUR OWN CORRESPONDENT)

The Winter at an End—The Medical Schools—Vivisection—The Chair of Chemistry in the Jefferson Medical College—The Chair of Physiology in the University of Pennsylvania—The County Medical Society Lectures—The Medical Jurisprudence Society

The long winter seems at length to be coming to an end, and none too soon for most people in this latitude, where there has been a very unusual amount of sickness and an unusually large number of deaths for the season We have had not only an unpleasant winter, but one exceedingly dangerous to health, and as a matter of consequence the doctors hereabouts have been unusually busy After the tire of the winter's work most of them will probably be glad of the short rest which they usually get about this time of the year

In the medical, dental and pharmacal schools, the annual time of parturition has come around Some of them have indeed already had their lying-in and have sent their progeny out upon the world The Women's Medical College, an institution which holds a proud position in connection with the education of women, had a very imposing commencement this year The annual address was delivered by Dr W W Keen, who took for his subject "Vivisection," or what is known by that name nowadays It is needless to say that in a school which represents such advanced ideas in science, although intended for the gentler sex, this subject was not treated in a purely sentimental way The doctor made a good stand against the extreme accusations which are brought against animal experimenters by the anti-vivisectionists This has led to some newspaper discussion, in which Dr Owen Wistar, one of the most frank and corrageous opponents of unlimited vivisection in the city, offered a correction of some of the statements made by Dr Keen, as he understood them To this Dr Keen has already made a temperate reply The subject of vivisection has been attracting a good deal of attention lately, on account of the efforts of the anti-vivisectionist society to have a bill passed through the legislature restricting and regulating vivisection, and the efforts of the most prominent experimenters in this city, generally endorsed by the medical profession, to prevent the passage of this bill So far the bill has not passed, and does not appear likely to pass Unfortunately, in this city the efforts of the anti-vivisectionists seem to be, or have been supposed to be, directed against certain well known experimenters This has led to a struggle, assuming a personal character, and assertions have been made in regard to both sides, which were not only disagreeable, but which on sifting, were found to be hard to prove The agitation, however, can hardly fail of doing good, for, on the one hand, the anti-vivisectionists will learn that vivisection as practiced nowadays is not the unreasonable and cruel thing which it once was, and the experimenters, on the other hand, will probably be influenced to still greater care that their experiments shall not even seem to be cruel And one who does not see how experimentation upon living animals can well be spared from the workshops of science may hope that a fair discussion of the subject may lead to restricting it within the narrowest limits consistent with reason

There are two professorial positions in Philadelphia now unoccupied,—the chair of chemistry in the Jefferson Medical College, and the chair of physiology in the University of Pennsylvania The former is once more opened to candidates on account of the unexpected and speedy resignation of Professor Mallet, whose leaving Philadelphia is a cause of general regret The resignation of the chair of physiology by Professor Harrison Allen makes an opening for some active physiologist At present the candidates whose names are seriously mentioned in connection with this chair are three graduates of the University of Pennsylvania, all of whom have been engaged in experimental work and have secured excellent reputation The rumor is that the chair will not be filled immediately, but that one of the candidates will be selected to lecture for a year, at the end of which time the chair will be filled

Among the minor excitements of the winter has been the establishment of a series of lectures on accidents and emergencies to be delivered at the Blockley almshouse These became so popular that tickets had to be issued, for the lecture hall was literally crowded to overflowing again and again, by women who came to listen to a description of methods for resuscitating the drowning, the hanging, the asphyxiated, as well as the first care of those who had received various lesser or greater injuries The rush to these lectures was probably simply a fashion, and could hardly be taken as an evidence of a desire of Philadelphia women to become familiar with these subjects

The County Medical Society has recently inaugurated a series of public lectures, to be given under its auspices at its meeting hall, and to which the general public are invited, to listen, and, if they choose, to take part At these meetings topics of general public interest are to be discussed At the first one Dr Shakespeare lectured upon the "Tubercle bacillus," and its relation to the public health At the second Col Ludlow, an officer in the United States Engineer Corps, who is at present most efficiently discharging the duties of chief of the water department of this city, is to give a lecture on the relation of the water supply to the health of the city The giving of these lectures marks another of the advances which are continually being made by members of the medical profession to distribute to the community the special knowledge which they have gathered

Another of these steps was marked over a year ago by the formation here of a Medical Jurisprudence Society, which has been very successful, securing the membership and work of some of the most intelligent of the members of both the legal and medical professions of this city At their meetings the lawyers and the doctors sometimes very plainly occupy their own peculiar standpoints This was illustrated not long ago in the discussion of a case where a man had been hanged for a most brutal murder committed in the penitentiary on a keeper The man was declared to be insane by several well-known witnesses in regard to insanity The commonwealth, however, succeeded in preventing the man's acquittal on this plea, and in due time he was hanged The subject was discussed before the Medical Jurisprudence Society, and the doctors and lawyers who had stood on opposite sides in the court-room renewed their struggles before the jury of their fellows in the society room Here the medical experts expressed their opinion as to the absurdities of the laws in such cases, and the district attorney replied with some natural opinions about medical experts The discussion was animated, and, while it did not lead to any agreement then, will doubtless be of advantage to both sides in the end And, at any rate, such meetings of men engaged in the work of different professions can hardly fail to do good Certainly no one would deny their utility in Philadelphia

C W D

THE SOUTHERN PLAGUE --ENDEMIC DYSENTERY.

[In our issue of March 14, we stated, in the miscellaneous columns, that what was believed to be a disease similar to that which carried off quite a number of people in Kentucky and West Virginia last fall, had appeared in Lancaster county, South Carolina We have just received the following note concerning it]

Dear Sir—Pursuant to your request, I will briefly describe an endemic dysentery, adynamic in type, and not readily yielding to treatment, which has appeared in this county As will be seen, it has caused quite a large percentage of mortality In the majority of the cases the affection has been ushered in by nausea and vomiting, soon followed by bloody and mucous discharges from the bowels In its early stages the temperature ranges from 99° to 101 5° Fah , but falling as low as 95° in some of the cases after eight or ten days The pulse was quick and compressible in the cases of two patients who died , in one of these there was complete suppression of urine for two days, in the other for five days The state of the peripheral circulation, the pulse and the fæces were such as to justify one in classing this affection as a low, adynamic or typhoidal disease , and consequently, alcoholic stimulants, tinct opii, camphor, bismuth, and in some cases calomel, were used, with charcoal to correct fetor The belief that malarial poison was a factor in the etiology of the disease would have prompted the liberal use of quinine, but vomiting prevented its continued use In the cases in which it was tolerated by the stomach it seemed to be of service

The number affected were whites 8, five deaths , colored 10, no deaths The dwelling occupied by the family, of which five died, is less than 400 yards from a sluggish creek, and about the same distance from a fish-pond, and less than 200 yards from a large quantity of sawdust, much of which is of oak, and the portion in contact with the ground is constantly moist Chills are prevalent on this creek during the autumn months

As regards this disease being the same as that known as the "southern plague," so fatal in Kentucky and West Virginia last fall, I will say that in my opinion they are entirely different

I am very truly,
J H Foster, M D

Lancaster C H , So Car
March 14, 1885

BOOK REVIEWS

The Principles and Practice of Gynæcology By Thomas Addis Emmet, M D , LL D , etc Third edition, thoroughly revised, with one hundred and fifty illustrations 8vo Pp xxiv, 876 Philadelphia Henry C Lea's Son & Co , 1884 Chicago Jansen, McClurg & Co

It is scarcely necessary to do more than call the attention of our readers to the fact that the third edition of Dr Emmet's work on Gynæcology has appeared We are prepared to place full credence in the statement of the author that the advance and change of views during the past four years have been so great in this department, that the preparation of this edition has necessitated almost as much labor as rewriting the book The chapters on the relations of education and social condition to development have been almost rewritten , as have those on pelvic cellulitis, the diseases of the ovaries, on ovariotomy, and on stone in the bladder So also, the chapters on prolapse of the vaginal walls, on lacerations at the vaginal outlet and through the sphincter ani and perinæum , on the methods of partial and complete removal of the uterus for malignant disease, the surgical treatment of fibroid tumors, diseases of the Fallopian tubes, and on diseases of the urethra, are in many respects new, containing the experience and views of the author in a form not hitherto presented, and one hundred and seventy-five pages of new material have been added to these chapters

There is just one point in this edition to which attention may very properly be called The author remarks that it is a notable circumstance that those who have given up the use of the spray (carbolic) in Great Britain, have shown the best results (in ovariotomy) "After the last operation I witnessed by Mr Thornton, I determined never to use the spray again I suffered for hours with headache and back ache, with nearly entire suppression of the action of my kidneys I was forced to the conviction that if I could suffer to such an extent with my kidneys free from disease, as I believe, the consequences must sometimes be very serious with a patient in a condition less able to withstand the toxical effects " We give the above quotation because the carbolic acid war still rages on both sides of the Atlantic , but it is war in which the principal participants do not suffer so much as the parties of the second part—the patients Dr Emmet does not regard the use of a spray injurious in the operation , on the contrary, he expressly says "A moist atmosphere is better fitted for the exposed peritoneum, so that the spray apparatus can be utilized to advantage in keeping the atmosphere of the room in a sufficiently moist condition " We give this sentence as it stands in the book, because the author has evidently been misinterpreted by Dr Homans in a recent letter to the Cincinnati *Lancet and Clinic*, of March 14 To hold, in view of recent results and statistics, the carbolic acid spray, or carbolic acid in any form, is necessary or in anywise useful in abdominal surgery, is scarcely less than denying that one should be guided by experience , and we regard this as stating the proposition mildly

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Manual of Nervous Diseases and an Introduction to Medical Electricity By A B Arnold, M D , Professor of Diseases of the Nervous System and Clinical Medicine, College of Physicians, Baltimore, Md With illustrations Pp vii, 170 New York J H Vail & Company, 1885

We are not disposed to be captious, and we are not dyspeptic, but it is well to remind the author of this book that there are no "Diseases of Clinical Medicine," as the title implies Within the short compass of 170 pages the author has attempted to write three treatises for the classical and well-worn "Beginner " There is an introductory chapter on the anatomy and physiology of the nervous system, which "is particularly intended to draw the student's attention to the recent and important accessions to neurology " This introductory chapter covers twenty pages Then comes a chapter of ten pages, on "General Symptomatology of Nervous Diseases ", and sandwiched between this and the fourth, on "Special Pathology and Therapeutics," is one of eleven pages on "Medical Electricity" The title of this truly elementary treatise is too little comprehensive by far What the student (!) will find in the chapter on the anatomy and physiology of the nervous system, is less than one-tenth of what he should have already learned before he is allowed (or should be allowed) to hear a clinical lecture on any subject

There are some books the writing of which is inexcusable, and on careful reading of this one, we are forced to think that it occupies a high place in that objectionable list

ASSOCIATION ITEMS

SECTION ON STATE MEDICINE, AMERICAN MEDICAL ASSOCIATION —In view of the increasing interest taken by the profession and the public at large in questions of state medicine, and especially in view of the possible cholera invasion that threatens us, it is hoped and believed that the coming sessions of this section at New Orleans will be of more than ordinary interest All those having papers to present before this section are urged to send the titles thereof, without delay, to one of the undersigned

E W SCHAUFFLER, *Chairman*,
Kansas City, Mo
J N MCCORMACK, *Secretary*,
Bowling Green, Ky

AMERICAN MEDICAL ASSOCIATION—SECTION ON OBSTETRICS AND DISEASES OF WOMEN —The following is the list of papers to be read before the Section on Obstetrics and Diseases of Women at the New Orleans meeting in April

1 Vaginal Hysterectomy for Cancer By A. Reeves Jackson, M D , of Chicago, Ill

2 Chronic Periuterine Abscess, Its Treatment by Laparotomy By Christian Fenger, M D , of Chicago, Ill

3 "The Ring of Bandl" By W W Jaggard, M D , of Chicago, Ill

4 Treatment of the Pedicle By Thadeus Reamy, M D , of Cincinnati, O

5 Emmet's Operation , When Shall It and Where Shall It be Performed? By Gustav Zinke, M D , of Cincinnati, O

6 Notes on Surgical Gynæcology By Horatio R Bigelow, M D , of Washington, D C

7 Uterine Stem in Flexions of the Uterus By Geo B F Fundenburg, M D , of Pittsburgh, Pa

8 Reasons for and Results of Some Cases of Tait's Operation By S C Gordon, M D , of Portland, Me

9 How Soon After Exposure to Sepsis May the Accoucheur Resume Practice? By Geo F French, M D , of Minneapolis, Minn

10 A New Speculum and a New Vaginal Irrigator By Thadeus M Healy, M D , of Cumberland, Md

11 A New Wire Speculum By W C Wile, M D , of Sandy Hook, Conn

12 The Multiple Speculum Uteri and an Improved Dressing Forceps By R J Nunn, M D , of Savannah, Ga

13 Parametric Abscess By W W Potter, M D , of Buffalo, N Y

14 The Role of Bacteria in Obstetrics By H O Marcy, M D , of Boston, Mass

15 Treatment of the Secundines in Abortion and Labor By W H Wathen, M D , of Louisville, Ky

16 Subject to be announced By Geo J Engelmann, M D , of St Louis, Mo

No 17 PELVIC Peritonitis, Suggestions as to Causes, Recognition and Treatment By Wm M Polk, M D , New York city.

This will about complete the list The papers *must not be over twenty minutes long*

J T JELKS, M D , *Secretary*

HOT SPRINGS, ARK , March 24, 1885

ROCKY MOUNTAIN MEDICAL ASSOCIATION —The annual premium of the members of this association will be held in the parlors of the St Charles hotel, New Orleans, on Wednesday evening, April 29, 1885 It is hoped that the members will be prompt in attendance JOHN MORRIS, *Secretary*

RAILROAD FACILITIES TO NEW ORLEANS —At the request of many members of the American Medical Association, the Illinois Central railroad has arranged to run a special train of Pullman palace buffet sleeping cars for the accommodation of themselves, their families and friends who wish to attend the meeting of the Association, which convenes in New Orleans April 28, and continues until May 1 This also gives a grand opportunity to visit the world's exposition

The special train will leave Chicago Saturday evening, April 25, at nine P M , and run through to New Orleans without change, reaching there at nine o'clock Monday morning, April 27, only thirty-six hours en route The rates for the round trip are as follows Tickets good for return within fifteen days, $20, tickets good for return within forty days, $25 , tickets good for return until June 1, $30 Parties desiring to return by another route, either via Louisville, Cincinnati or St Louis, will be provided with tickets at $5 in excess of above rates

Sleeping-car Rates—Chicago to New Orleans, one double berth, $6 , Chicago to New Orleans, one section, $12 Please apply early to C S Burton, ticket agent, 121 Randolph street, for berths, or address the undersigned A J HANEON, *G P A*

PROVIDENCE, R I , March 30, 1885 —Delegates from New York, on the line of N Y C & H R R R , who desire to join the party from New England, which will go through from Boston to New Orleans without change, can do so by making application to Dr W E Armstrong, 36 Benefit street, Providence, R I , and sending $11, price of double berth (half section), for one way, or $22 for round trip, *before April* 15 Fares for round trip From Albany, $36 40 , Syracuse, $33 25 , Rochester, $31 65 Trains will leave Albany, April 24, 10 15 P M , Syracuse, April 25, 2 35 A M , Rochester, 5 05 A M , Buffalo, 7 05 A M

MISCELLANEOUS

FACTS FOR ANTIVACCINATIONISTS —The *British Medical Journal* of March 7 states that while the deaths from smallpox last year, throughout the entire German empire, averaged one or two a week, and never exceeded four, there died in Prague, a city of about 270,000 inhabitants, no fewer than eight hundred and twenty-eight persons between January and June, besides four hundred and nine in the last four months of 1883 Between October 1, 1883, and March 31, 1884, fifty-six cases, nearly all children under five years of age, were admitted into the Polyclinic Hospital Of these, fifty-two were unvaccinated and four vaccinated, two of the latter, however, not until after infection Of the fifty-two unvaccinated, 21 per cent died, of the vaccinated, none Buenos Ayres is a city of about 287,000 people, and vaccination is unpopular and not compulsory While the births in 1883 were about 11,000, the total number of vaccinations and revaccinations was 8,643 The deaths from all causes were 8,248, or 28 per 1,000, and those from smallpox 1,487, or 5 per 1,000 of the population, and 18 per cent, or nearly 1 in 5 of the total deaths In Prussia, the mortality since 1875 has been from 0 34 to 3 62 per 100,000 yearly, in Austria, 5 57 to 50 83, in Berlin, in 1882, it was 0 43, and in Vienna 108 29 per 100,000 Since 1875 not a single Prussian soldier has died of small-pox, in the Austrian army, 10 to 47 per 100,000 annually, and in the French, 2 to 27 per 100,000 have died

MEETING OF THE ILLINOIS STATE BOARD OF HEALTH —The Illinois State Board of Heath will hold a meeting at the Grand Pacific hotel in Chicago, on Thursday, April 16 This is the meeting at which the annual examination of candidates for certificates is held, and such candidates are notified that the examination will cover the subject of preliminary education

DR T H WINGFIELD died at his residence near Baltimore, Md, on March 30, at the age of fifty-two years He was attached to the staff of General Lee, as Surgeon, during the late civil war

FATAL CHICKENPOX —Two fatal cases of chickenpox, one reported by Dr G W Rachel, in the *Archives of Pediatrics*, for April, 1884, the second by J V Wichmann, of Copenhagen, in the *Nordiskt Med Arkiv*, xvi, No 20, show that varicella is not always the mild disease which is its general characteristic

AN ANTI CHOLERA APPROPRIATION —The Appropriation Committee of the Illinois Legislature decided two weeks ago to put in the General Appropriation bill a clause for $40,000 for the State Board of Health, as a contingent fund to be used in case of an outbreak of cholera, instead of the $85,000 recommended by the board as necessary It is believed the amount named in the bill will be increased by the Legislature

NEW CONTRIBUTIONS TO BACILLUS LITERATURE —As the first literature of the cholera bacillus was in the German language, it seems eminently proper that the first verse in which this microbe figures should also be in that language *Die neue Welt* is responsible for the following

Ein Cholerabacillus sitzt einsam
Im Schiffe auf wogender See,
Er kann sich am Bord nicht vermehren,
Das thut ihm im Herzen so weh

Er träumt von einer Bacilla
Am fernen Choleraheerd,
Die sich in jeglicher Stunde
Um einige Tausend vermehr

NEW YORK STATE MEDICAL ASSOCIATION, FIFTH DISTRICT BRANCH —The second special meeting of the Fifth District Branch will be held in Poughkeepsie on Tuesday, May 19, 1885

THE CHICAGO MEDICAL COLLEGE held its annual commencement on Tuesday, March 24 Forty-one graduates received the degree of Doctor in Medicine In the evening a banquet was given at the Leland Hotel

THE NEBRASKA STATE MEDICAL SOCIETY will hold its seventeenth annual meeting at Grand Island, on Tuesday, May 26, 1885

DR STANFORD E CHAILLE has been appointed by the President to fill the vacancy in the National Board of Health caused by the death of Dr Bemiss

THE MEDICAL ASSOCIATION OF GEORGIA will hold its annual meeting in Savannah on April 15, 16 and 17

THE AMERICAN SURGICAL ASSOCIATION will meet in Washington, D C, on April 21, 22, 23 and 24 From the list of papers on the programme this meeting promises to be exceptionally interesting

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U S ARMY FROM MARCH 21 1885 TO MARCH 27, 1885

Havard, Valing, Captain and Assistant Surgeon, leave of absence extended one month (S O 65, A G O, March 21, 1885)

Raymond, H I, First Lieutenant and Assist Surgeon, assigned to duty at Fort Gaston, Cal, Post Surgeon (S O 30, Department of California, March 20, 1885)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED MARCH 8, 1885

Sawtelle, H W, Surgeon, Detached as chairman of physical examination of the Revenue Marine Service, March 17, 1885

Armstrong, S T, Passed Assistant Surgeon Granted leave of absence for thirty days March 16, 1885

Ames, R P M, Surgeon, Detailed as recorder of Board for physical examination of officer of the Revenue Marine Service, March 17, 1885

Battle, K P, Assistant Surgeon, to proceed to Memphis, Tenn, for temporary duty, March 27, 1885

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S. DAVIS.

PUBLISHED WEEKLY

VOL IV CHICAGO, APRIL 11, 1885 NO 15

ORIGINAL ARTICLES

PRIMARY DIFFUSE ABSCESS OF THE BRAIN (?) APHASIA, DEATH

BY WM G EGGLESTON, A M, M D,

OF PHILADELPHIA, PA

The term "diffuse abscess of the brain" is used in the above title for want of a better name The nature of the lesion is explained in the report of the case

Case —On January 15, 1883, I was requested by my father, Dr J D Eggleston, of Hampden Sidney College, Va , to visit P H——, a German, æt 54, who had been sick since November, 1882, but had not come under treatment until about December 20 There was nothing of importance in the history save malarial attacks, he had been under treatment for intermittents six months previously No history of syphilis, so far as could be ascertained he had never suffered from headache except from the malarial attacks

When he was first seen by the writer he complained of no pain, of nothing, in fact His appetite was very small, sometimes eating nothing during the day His wife had noticed that he was becoming more forgetful every day, he would apparently forget to eat his food when it was placed before him It was only with great difficulty that he could be induced to say anything at all, on some days he would not utter a word, but would sit with folded hands, occasionally picking at the right ear, from which there was a bloody purulent discharge The bowels were very constipated, the urine, on careful examination, showed no marked departure from the normal The general appearance of the patient was that of a person suffering from the most profound melancholia There were no other symptoms than those recorded here, even when the patient was seen by my father, indeed, there was even less reason to think that there was anything at all the matter

A careful physical examination showed a painful spot below the free border of the ribs on the right side, about the junction of the tenth rib with its cartilage, too far to the right, as was thought, to be caused by gall stones From this pain, the extreme melancholia, and from the general obscurity of the case (and possibly, also, from a desire to make a diagnosis), I diagnosticated probable abscess of the liver, and wished to make an exploratory puncture, to this, however, my father was opposed, and the autopsy subsequently showed that he was correct Within a day or two he began to pass his fæces and urine in bed, and at times to press his hand to his forehead, as though his head pained him If a cloak was thrown over him, he would spend half an hour in arranging it, and after being satisfied with it in a certain position he would go over the whole matter again, until something else chanced to arrest his attention But not many minutes would elapse before he would return to the arranging of the cloak or whatever was thrown over him as he lay in bed The most persistent efforts failed to elicit a word from him at this time or afterward Possibly he would recognize a person by a nod of the head, but for days before his death he did not utter a single word This did not seem to arise from any paralysis of the muscles of articulation, there was no difficulty in swallowing fluids when they were introduced into his mouth

There was no paralysis of the extremities until the day before his death, and then only slight paralysis of the arms and hands There was no peculiarity of the temperature or pulse, except that the latter was very weak For a day or two before his death he had several sinking spells, he would become cold, completely insensible, and almost pulseless, but would revive after vigorous rubbing and the application of stimulants, bottles of hot water, hot flannels, etc On February 1 he fell into a completely comatose state, and died on the next day at 9 P M

Autopsy, February 3, fourteen and a half hours after death The body was cold externally, cadaveric rigidity not well marked

Cranial Cavity —The amount of cerebro-spinal fluid was large, the vessels of the dura mater were distended with dark blood, the membranes were very adherent, and in some places it was necessary to use the handel of the scalpel to separate them The only gross lesion noted on a careful examination was what was taken to be a diffuse abscess in the left hemisphere, posterior to the fissure of Sylvius, commencing about an inch below the surface, and extending downward to about the level of the left lateral ventricle The perpendicular measurement was barely more than an inch and three quarters, its lateral measurement, one and a quarter by one and a-half inches The color of the spot was a dirty yellow, and the brain substance within was somewhat broken down No clots, extravasations or thrombi could be found There was no internal lesion of the petrous portion of the right temporal bone, this was carefully sought for on account of the purulent discharge from the right ear during life

The thoracic organs were not examined The liver was of normal size, color and consistency The gall-bladder was distended with thick, viscid bile, dark colored, and contained three large gall-stones, but which were lost before an examination was made The ductus communis was almost entirely occluded The kidneys were normal On account of objections on the part of the family, no further examination was made

Cerebral abscess, without any history of traumatism, inflammatory disease of the cranial bones, meningitis, rheumatism, cerebral tumor, syphilis or zymotic fever, not even of exposure to the rays of the sun, is a very rare occurrence The only question in the mind of the writer is whether this can be termed a case of abscess In the sense that an abscess is limited by a membrane, or sac, which encloses a certain quantity of pus, it was *not* an abscess On account, therefore, of the difficulty in giving a more definite name to the gross lesion which was found, I have ventured to term it a diffuse abscess, there was no limiting membrane, or sac, but at the same time there was pus

It was very clear that whatever caused the discharge from the right ear could not be in the most remote degree connected with the brain for lesion, for, not only were the brain lesion and the affected ear on different sides of the head, but there was nothing whatever on the inside of the cranial cavity to indicate that the ear lesion causing the discharge had extended beyond the middle ear, the appearance of the internal auditory meatus was perfectly normal

Whence the brain lesion discovered originated, or how, it is impossible to say There seems scarcely room for doubt, however, that the lesion found was directly responsible for the silence on the part of the patient The spot of softening was situated in the white substance immediately underlying the first and second frontal convolutions, the white substance under the fissure of Rolando, and the posterior extremity of the superior frontal convolution, a part of the corpus callosum, a portion of the caudate and lenticular nuclei, of the optic thalamus and of the internal capsule being also involved to some extent I think that there can be no question that this lesion caused aphasia, which is the explanation of the persistent silence, but if the patient wished to speak and was unable, it is difficult to understand why he should not have communicated the fact in writing It is difficult also to understand why there was no hemiplegia, there was some paralysis late in the course of the disease, but there should have been a considerable degree of right hemiplegia The tongue of the patient did not even deviate when it was last put out, two days and a half before death Altogether, this was a very curious and interesting and obscure case

There is perhaps one important lesson which it enforces,—that melancholia is by no means a pathognomonic symptom of abscess of the liver There are a few men who have a morbid desire to aspirate the liver of every man who has an attack of the blues, and it is seen that the writer wished to do the same in this case The treatment used in this case has not been referred to because, so far as being of any benefit was concerned, it amounted to nothing Indeed, with the exception of means taken to relieve the constipation, and to mitigate the discharge from the ear, very little medicine was given

In giving the above history I omitted to state that a few days before the patient's death he passed quite a large quantity of pus (about a pint,—possibly not quite so much) *per anum*, which still further confirmed my belief that there was an abscess of the liver, and that it had broken into the intestine The limited autopsy threw no light on the question as to the locality in which this pus had formed, but it most certainly did not form in the region of the liver And, furthermore, the patient gave no sign or symptom which led to a suspicion that pus was forming in the abdominal or pelvic cavity

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PEPSIN AND ITS PREPARATIONS

BY J J CALDWELL, M D,

OF BALTIMORE, MD

The study of special gastric and intestinal diseases makes it desirable to look for preventive, as well as curative agents My purpose in this paper is to call attention to such articles as experiments have proved preventive of diseases of the digestive organs in very many cases The inroads of irritation of simple catarrh of the mucous membrane of the stomach, and irritation of the mucous membrane from effects of sour milk, gravies and starch compounds in young children may be prevented in very many cases, and life often saved, by a close attention to diet

Pepsin, the most powerful adjunct in digestion, and from which so much benefit is gained by its use as a preventive medicine, is manufactured by very many pharmacists, each claiming a superiority over their rivals in some special degree I can only refer to such as have given evidence of merit in my practice

Messrs W H Schieffelin & Co, of New York, have a formula for pepsin with bismuth and strychnine in soluble gelatine pills, which I have found of great value in gastric troubles It fulfils more indications in stomachic disorders than any other pepsin with which I am acquainted This firm also prepares a very worthy saccharated pepsin, which readily dissolves fifty times its own weight of freshly coagulated egg-albumen, and a convenient and efficient solution of liquid pepsin, one-half ounce of which dissolves 100 grs of coagulated albumen, and their pure pepsin, one grain of which dissolves 300 grs of egg albumen

Messrs Fairchilds Bros & Foster, of New York, manufacture an article known as peptogenic milk powder, which is designed to supply the daily food of a nursing infant, as a physiological substitute for mother's milk This preparation is free from any starch, malt sugar or cane sugar In this preparation the digestive ferment, trypsin, the analogue of pepsin, is the agent utilized to effect a much desired change in the caseine by which it becomes *similar in* constitution to the albuminoids of woman's milk. It also supplies essential components necessary to adjust the prepared milk to the quantitative composition of human milk. This humanized milk gives, in the stomach or with acids, the minute soft flocculi characteristic of human milk, in striking contrast to the large masses of curd formed by cow's milk.

Prof. Albert R. Leeds, a recognized authority on the subject of infant's foods and the analysis of human milk, states that the Peptogenic Milk Powder has "*been found to yield a humanized milk which* in taste, physical characters and chemical constitution approaches very closely to woman's milk."

We have the analysis given by Prof. Leeds of eighty samples of woman's milk, and of humanized milk as yielded by the Peptogenic Powder, viz.:

	Minimum	Maximum	Average	Humanized Milk
Water	83.21	89.08	86.73	86.02
Fat	2.11	6.89	4.13	4.5
Milk sugar	5.40	7.92	6.94	7.0
Albuminoids	.85	4.86	2.00	2.0
Ash (salts)	.13	.37	.20	0.3

Directions.—Put an even full measure (each can contains a measure for the Milk Powder) of the powder in a tin cup and mix with four tablespoonfuls of water, four tablespoonfuls of fresh milk and one tablespoonful of cream. Heat over a brisk flame for six minutes, stirring constantly with a spoon and tasting often, so that it shall not get too hot to be sipped. Now put into nursing bottle, and it is ready for feeding. If cream is not convenient, use one tablespoonful more of milk instead. Never allow the milk to become warmer than can be borne by the mouth; by so doing the vitality of the digestive principle of the Peptogenic Milk Powder is destroyed. *The powder should be kept tightly covered in a dry place.*

There is another preparation, manufactured by this firm, of pepsin in scales, thin, of yellowish color, and is entirely free from starch or sugar of milk, as well as other impurities. A single grain of this preparation dissolved in half a pint (8 oz.) of water, to which forty drops of hydrochloric acid are added, has been found capable of dissolving 1,000 grs. of coagulated albumen at 100° F. in the space of four hours. They have the pepsin in form of powder and in scales. It is very beneficial as an aid to the digestive process.

In my experiments with this article, I boiled an egg about five minutes and mashed it finely. Then to one grain of the pepsin scales I added 8 oz. water and about forty drops of muriatic acid, which solution I found dissolved about 1,000 grs. of the coagulated albumen in 4 hours at a temperature of 100° F.

In cases in which I have administered the above remedies, I have found them to come up fully to the requirements of the case in digestive troubles. I believe the artificial milk (humanized) to be the best substitute yet offered for the natural supply, and indeed, in many cases, better than the mother's milk, especially when the question of health or taint is involved; and many times more safe than to trust the babe to a professional nurse.

It is very common to find acid, sour smelling matters vomited from the stomachs of children, especially during the period of teething, when their digestion is feeble and the aptitude to diarrhœa great. Pepsin in any of its reliable forms will relieve this condition of the stomach in teething infants. Farquharson, in his work on Therapeutics, says: "Pepsin is the most important digestive element of the gastric juice, and more especially reduces the alluminoid and proteinaceous constituents of the food to a fit state for absorption", and adds, "there can be no little doubt that many dyspeptic conditions in the diarrhœa of children and in some forms of spasmodic asthma, where the use o fpepsin seems to be attended with good results." He further adds that pepsin has been recommended as an addition to nutritious materials to insure some preliminary digestion. Nysten makes the word pepsin come from the Greek word *to cleanse—to digest*. He calls it the result of change of the nitrogeneous substances of the stomach walls.

A NOTE ON THE MANAGEMENT OF SHOULDER PRESENTATIONS.

BY E. F. WELLS, M.D.,

OF MINSTER, O.

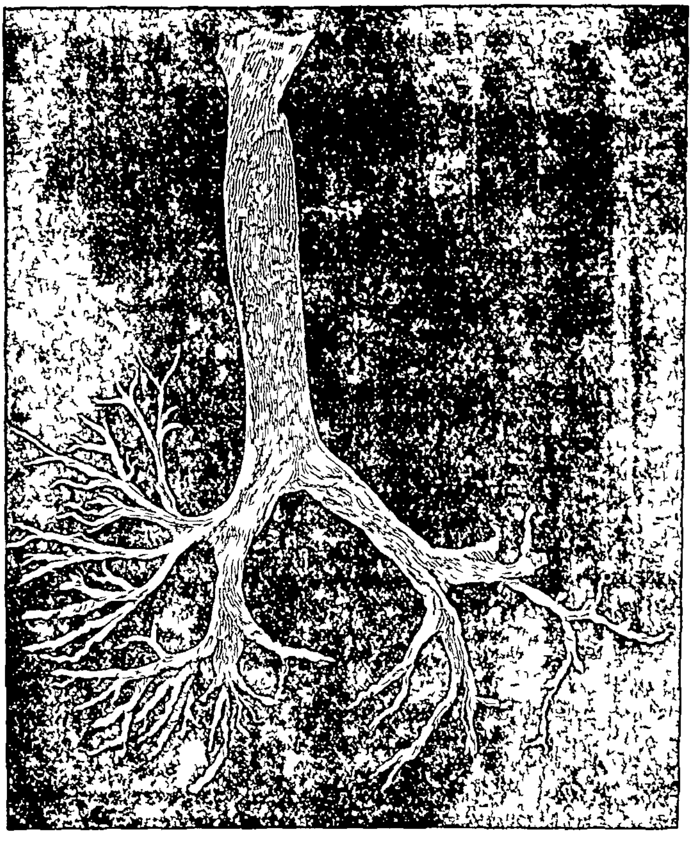
I recently was called to see a woman, aged 44 years, three days in labor with her thirteenth child. She was a well formed woman and had passed through the period of her pregnancy to full term, with no symptoms of any importance. When I arrived I found the cord prolapsed and the left shoulder presenting at the pelvic brim. The os was fully dilated, and the amniotic fluid had long since drained away. The woman had become restless and irritable, was a little feverish and the vagina and os uteri were swollen, dry, hot and painful.

The cord was pulseless, but was warm and moist, and the midwife informed me that it had been pulsating only a short time before. I determined, therefore, to replace the cord before proceeding to turn, and to facilitate this I placed the patient in the knee-chest position. The cord was then easily replaced well up in the uterine cavity. In doing this I was astonished at the facility with which I passed my hand by, and the mobility of the previously firmly wedged-in shoulder, and pursuing the investigation further, I found that I could readily push up the shoulder and, by external manipulation, bring down the head, which was done. Maintaining the parts in this position, I directed the patient to rise upright on her knees, and I soon had the satisfaction of knowing that the pains were engaging the head in the superior strait. A dose of ergot was administered, the woman placed in a more comfortable position, and the labor was soon terminated in a natural manner, the child being dead. The mother recovered without any trouble whatever.

In this connection I wish to call attention to the old, but long neglected plan of placing the woman in the "knee-chest" position when about to perform version in cross presentations. In this position the operator has the aid of gravity in relieving the downward pressure upon the pelvic brim, thereby facilitating the passage of the hand into the uterus and all the subsequent manipulations and, I conceive, tending to prevent the unfortunate accident of rupture of the uterus I feel confident, also, that cephalic version will be found perfectly feasible in many cases in which podalic version would be the only alternative with the woman in the ordinary position Another advantage is, that the pains are much less powerful and effective when the uterus is suspended than when it is lying upon the spine and pelvis I should very much like to see this method of dealing with these difficult cases given a fair and impartial trial by accoucheurs, and the results laid before the profession for future guidance

DIPHTHERITIC CROUP, A PSEUDO-MEMBRANE COMPLETELY LINING THE LARYNX, TRACHEA AND LARGER BRONCHI

Several months since Dr C E Hogeboom, of Eau Claire, Wis, sent us a beautiful photograph, life size, of a complete membranous mould of the larynx, trachea and some of the primary bronchi It was expelled during a severe paroxysm of coughing by a girl 16 years of age, laboring under a severe attack of diphtheritic croup The following cut correctly represents the photograph



Reduced one half

It is seldom that the membrane, in this class of cases, extends so far downward in the bronchi, or is expelled in so complete a form The relief following the expulsion of the membrane is reported to have been very great in the above case, but continued for only a few hours, when the dyspnœa again began to increase, and the case terminated fatally within the next twenty-four hours In a case that came under our own observation several years since, in which a similar membrane of almost equal extent was expelled, the same results followed Such cases also show why the operation of tracheotomy so frequently fails to afford more than a temporary relief of a few hours

Editor

CASE OF UNION AFTER LOSS OF TWO INCHES OF THE TIBIA

BY C E WEBSTER, M D,
OF CHICAGO, ILLINOIS

The following report is prepared from the memoranda of Dr M F Bassett, of Quincy, Ill

In the month of April, 1871, Peter Vahle, a mechanic, was injured in the leg by a fragment of a small iron cannon which exploded in the celebration of the surrender of Paris

The physicians called found the fragment, which was of about two pounds weight, still clinging to the lacerated flesh and clothing It had torn away a portion of the leg at about the junction of the middle and lower third of the tibia, destroying the continuity of this bone by the loss of two inches of its length The fibula was uninjured, and a strip of flesh inclosing it and covered by its integument of about the width of three fingers, was all that remained of the soft parts Hæmorrhage was not profuse Immediate amputation was advised, which the patient refused, thus the case came into the hands of the family physician, Dr M F Bassett, who essayed the apparently hopeless task of saving the limb The patient, who was in good health at the time of the accident, and about thirty years of age, was removed to St Mary's hospital Dr C R S Curtis was called in consultation Fragments of bone and foreign substance were removed from the wound, and it was left to the slow process of healing by granulation It was frequently cleansed with a carbolic acid solution, and after several weeks it became apparent that the interval between the two fragments of the tibia was diminishing, after three months the ends were in contact The lower portion projected forward, thus preventing the healing of the wound The projecting point being cut away, cicatrization progressed, and in about four months after the injury the patient was discharged apparently with bony union and a healed wound

On March 24, 1885, nearly fourteen years after the injury, the leg presents the following appearance

A shortening of about three fourths of an inch in the length of the leg from the knee to the heel as compared with its fellow A large depression at the seat of the wound, at the anterior aspect of which the nodular surface of new bone is plainly apparent both to the touch and eye The fibula is markedly flexed, and the portions of the tibia are parallel with the fibula above and below the point of union, thus meeting at a slight angle Most of the shortening is evidently due to this bending of the leg The internal malleolus is slightly higher than normal, this also may be due to the leaning of the lower fragment over toward the fibula The circulation in the foot is poor, as is evinced by its cyanosed appearance and coldness

The patient can use the limb without any artificial support, but as it is likely to ache if fatigued, he employs as an external splint a simple rod of iron attached to the shoe and articulated opposite the ankle joint It is impossible to detect any motion indicating fibrous union between the portions of the tibia, and the bending at this point can be wholly accounted for by the inability of the newly deposited bone to sustain the weight of the body This case is of special interest as showing the condition of the parts at a period long after the injury Cases are reported of the discharge of hospital patients who have recovered with slight shortening of the limb after similar injuries, but the case above cited is exceptional, both in the severity of the wound and in the final result

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

THE PHYSIOLOGY OF THE PHRENIC NERVES —Up to the present time the phrenic nerves have been considered solely as motor nerves of the diaphragm VON ANREP and CYBULSKI have demonstrated the presence in them of sensitive fibres Their experiments have been made on rats, dogs and cats The experimenters have cut the phrenic nerves, and, by exciting the central ends, they have produced changes in the respiration and circulation, and have produced painful sensations A slight excitation accelerates the respiratory movements and increases their amplitude, but a strong or prolonged stimulation retards them These results are not modified by section of the pneumogastrics Stimulation of the central ends quickens the heart-beats and increases the arterial pressure, the line of ascent being vertical, and the line of descent, on the contrary, becoming more oblique and longer These effects are not lasting, but they are reproduced whenever stimulation is recommenced The same phenomena are observed in animals where the cardiac nerves have been cut in the neck The observers put forth the hypothesis that this centripetal path, which is excited periodically by the contractions of the diaphragm, is intended to regulate the due proportion between the quantity of air and blood which may enter the lungs —*Gazette Medicale de Nantes*, Feb 9, 1885

EXPERIMENTS TO DETERMINE THE ORIGIN OF THE RESPIRATORY SOUNDS —MR J F BULLAR has presented quite a lengthy and well illustrated paper on this subject to the Royal Society of London By a very ingenious apparatus he utilizes the fresh lungs and tracheæ of sheep or calves, fixes them without compression in an air-tight chamber, surrounds them with water, and exerts pressure upon them by the aid of an artificial diaphragm attached to a bellows frame, this, with a suitable flexible stethoscope, he finds sufficient for the purpose A pair of lungs is used, one lung lying in the artificial thorax, the other lies upon the top of the chamber collapsed, and is unaffected by the respiration going on in its fellow

The sounds heard in the two lungs are quite different Listening to the inner lung with the flexible stethoscope, the breathing sound is quite distinct, and resembles vesicular breathing, the expiratory being very faint compared with the inspiratory sound Altering the size of the opening of the trachea does not sensibly affect the sound unless the narrowing be carried so far as to interfere with the entrance of air, when the sound becomes more feeble

In the outer lung, in which the air is motionless, both inspiration and expiration are loud, the breathing is bronchial The sound is loudest over the larger bronchial tubes, but it is quite distinct as far as the edges of the lungs On compressing the bronchus leading to the lung the sound ceases to be heard If the trachea be plugged while the inner lung is in a state of inspiration and the machine kept in motion, both lungs breathe, expiration and inspiration alternating in the two The breathing sound in the outer lung now becomes "vesicular," changing to bronchial whenever the trachea is opened, and it ceases to breathe The same result follows whether the trachea be left long or cut off and plugged close to the bifurcation These experiments show that the vesicular murmur is not produced in the glottis or trachea alone, since it continues when the larynx and nearly the whole of the trachea are removed, and when the trachea being plugged and the lungs breathing from one to the other, there is no current of air through what is left of the trachea

This apparatus further demonstrates First, that the obstruction of a bronchus upsets the ratio normally existing between the rates of the air-current in the different parts of the respiratory tract When a larger or smaller bronchus is obstructed, the cross sections of the bronchi and vesicles are more or less diminished, and the rate of the air-current in them proportionately increased, the rate in the trachea being unaffected by the obstruction as such And, secondly, that when a bronchus is obstructed, a sound is produced by the air passing over its mouth On compressing either of the bronchi, a marked increase of sound was heard over the trachea, the increase in the expiratory sound being the greatest The explanation of this fact seems to be in the following During both inspiration and expiration a sound is produced by the passage of the air over the mouth of the obstructed tube During inspiration this is the only new sound produced, the air passing from the trachea to the bronchus, that is, from a larger to a smaller tube, but during expiration the air passes from the bronchus to the trachea—from a smaller to a larger tube—which, as is well known, is a sufficient cause to produce a sound Therefore during inspiration a cause for the production of *one,* and during expiration causes for the production of *two* new sounds are present Mr Bullar considers that these experiments illustrate the way in which bronchial breathing may be produced in extensive consolidation, and in any other conditions which give rise to a stasis of air in the bronchial tubes *In such cases a new sound is produced at the junction of the obstructed with the unobstructed tubes This sound does not exist in health*

These experiments all go to prove that the respiratory sounds are produced at those parts of the respiratory tract where the air passes from a narrower to a wider space Thus during inspiration one sound is produced at the glottis, and another at the points where the smallest bronchioles open into the vesicles During expiration a sound is produced at the glottis only The lung may be made to expand, when partially inflated and the bronchus tied to prevent the entrance of any current of air, when a slight current must enter the vesicles during expansion, but no sound is produced showing that the pulmonary sound is not due to the movements of the tissues of the lungs Mr Bullar's paper is published in the *Proceedings of the Royal Society,* Vol xxxvii, No 234

MATERIA MEDICA AND THERAPEUTICS.

THE TREATMENT OF ACUTE PLEURISY WITH TARTAR EMETIC —PROF JACCOUD has pursued the plan of treating acute pleurisy with tartar emetic for a long time, the undoubted utility of this therapeutic agent was recently demonstrated by two clinical cases of acute pleurisy, one being markedly acute, the other symptomatic, both being cured with rapidity It is particularly in cases of this kind, with abundant secretion forming rapidly, and with intense fever, that this only is applicable In such cases, except from the severity of the dyspnœa, there is no indication for thoracentesis In these cases digitalis, quinine or salicylic acid diminish the fever and relieve the general symptoms, but have no effect on the secretion, which remains stationary The tartar emetic, administered according to certain rules, presents the triple action of an antipyretic, eliminator, and antiphlogistic The history of one case will serve as an illustration for the others This man took, on the first day of treatment, 40 centigrammes of tartar emetic, in a potion, he took a teaspoonful of this potion every hour, and had frequent vomiting and numerous stools That evening the temperature was 38°, 5 C, the next morning 38°, 2 C, the following evening 39°, C From that time the secretion, which had been increasing, seemed to diminish a little A day passed, and, after an interval of two days, a second potion was given with the same results, but two days later the apyrexia became positive, and five days after the second dose there was a considerable diminution of the secretion, which diminution went on rapidly, and was followed by a complete cure

This result is sometimes attained only after a third dose, and sometimes a single administration will suffice The dose is 40 centigrammes for a robust man, and 30 centigrammes for women or men who are not robust The menstruum is ordinary julep, or with a syrup, but never with opium, which prevents or retards the diarrhœa and vomiting At the end of the first day of treatment the patient is usually exhausted, and requires a stimulant From one to three days are allowed to elapse before the second dose is given It may be that after this second dose the general condition is favorably modified, while the local condition appears unaltered Under such circumstances a drastic cathartic, instead of a third dose, may prove efficacious

It should be remembered that the efficacy of this treatment is indicated by the persistence of the febrile movement If a case of pleurisy presents effusion, but no fever, the drug is much less active, this fact is marked even where the fever has subsided for only one or two days, but if the period be longer it has no more effect than an ordinary purgative —*Jour de Medecine et de Chirurgie,* Feb , 1885

OBSTETRICS AND GYNÆCOLOGY

ANALGESIA OF THE GENITAL PASSAGES OBTAINED BY THE LOCAL APPLICATION OF COCAINE DURING LABOR —DR DOLERIS, having a case of placental polypus occurring in consequence of abortion, and having to deal with an uncontrollable vaginal spasm, making examinations very difficult, succeeded in completely suppressing the pain and irritability by the application of cocaine, used a quarter of an hour before the operation (He used hydrochlorate of cocaine in solution of 5 100) This encouraged him to undertake, with M Dubois, a series of analogous essays upon women in labor They used a solution of hydrochlorate of cocaine 4 100 mixed with lard, in eight cases In six of these cases the result was very marked With the primiparæ, in whom dilatation of the cervix caused severe pain, after one or two minutes following the painting of the cervix with cocaine, perfect relief was afforded With the others, during the period of expulsion, the pain was only in the uterus, and allowed them to assist freely by muscular contractions With two of the cases there was no effect produced, showing that there are unknown factors which retard or prevent the action of cocaine These cases receive before and at the beginning of labor injections of corrosive sublimate 1 ♏ to 2 ♏ The genital mucous membrane becomes thoroughly saturated with this solution, a part necessarily remaining in the vagina The sublimate decomposes the alkaloids very rapidly, and there is no doubt but that this fact exerted a strong influence in these two cases The amount of the preparation of cocaine necessary for the purpose was 50 or 60 drops of the 4 100 solution, or 3 to 4 grammes of the ointment, which was absolutely free from danger The regular progress of the labor was not retarded, and it was only the general sensibility that was obnubilated, the reflex sensibility remaining normal The uterine contractions continued with their usual intensity, duration and frequency These observations were communicated by Dr Doleris to the Société de Biologie (Séance du 17 Janvier, 1885) Since then he has added seven cases to his list, and concludes 1 That cocaine exerts no influence on the pains of uterine contractions, but they do not become excessive 2 That but little pain exists after analgesia, the cocaine affording relief to that pain which occurs in consequence of distension and irritation of the nerves of the supravaginal and intravaginal portions of the neck of the uterus and of the vagina itself 3 That no relief is afforded against the severe pain which is due to compression of the nerve trunks of the pelvis 4 That the pain felt in the mucous membrane and in the vulva on expulsion is perfectly relieved Expulsion is painless and *very rapid*, lasting ten, fifteen to twenty five minutes

Dr Doleris intends to continue his observations by studying the influence, as an analgesic, of bromide of potassium alone and combined with cocaine —*Archives de Tocologie, etc , February, 1885*

THE EFFECTS OF THE CURETTE —DR DUERELIUS (assistant to Dr A Martin, of Berlin) contributes to the *Zeitschrift fur Geburtshulfe und Gynakologie*, Band X, Heft 1, the result of an investigation into this subject The use of the curette in cases of endometritis, menorrhagia, etc , has been warmly advocated by Dr A Martin and others It has been asserted by those who do not look with favor upon the instrument—(1) that it is impossible to detach with the curette the whole of the uterine mucous membrane or to make a diagnosis as to the nature of the disease present from examination of the bits scraped away by the curette, (2) That the relief to symptoms which follows the use of the curette is not permanent, (3) That the detachment by scraping of the lining membrane of the uterus prevents future pregnancy Dr Durelius, in this paper, gives the result of an inquiry into these objections (1) from experiments on the dead body, in which the uterine mucous membrane was scraped in exactly the same way as this operation is performed on the living, and the uterus then taken out and examined, he finds that it is possible with the curette to entirely denude the uterine muscular tissue of its mucous membrane, except in the immediate neighborhood of the orifices of the tubes As to diagnosis, in five cases in which malignant disease was diagnosticated, and in four others in which endometritis adenomatosa was concluded to be present, from examination of the fragments detached by the curette, the uterus was extirpated, and the diagnosis was in each case confirmed (2) The second objection he can answer less definitely, all he can say is that patients have, after treatment by the curette and caustic, been sent out free from symptoms, been told to come back if the symptoms returned, and have not done so (3) With regard to the third objection, he has been able to find no less than sixty cases of pregnancy occurring after scraping out of the uterine cavity In eleven of these the curette was used to remove pieces remaining after abortion, in the other forty-nine for endometritis, thirty-two of these having been pregnant before, seventeen not Out of the sixty pregnancies only six ended in abortion Dr Durelius believes that the curette, so far from causing sterility, sometimes cures it —*Medical Times*, February 21, 1885

MEDICINE

CASE OF ECZEMA FOLLOWING THE COURSE OF THE SMALL SCIATIC AND SHORT SAPHENOUS NERVES —DR FRANK SHEARER gives the details of a case with the above title in the *Glasgow Medical Journal*, accompanied by a photograph which shows admirably and at a glance the condition described The eruption is essentially eczematous in its nature, it extends as a continuous ribbon-shaped band from the left buttock to the base of the little toe, it corresponds, to a considerable extent, with the course of the small sciatic and short saphenous nerves, it has been in existence, in part at least, for nearly eighteen months, it began without any apparent cause, and it has not been associated at any time with neuralgic pains, or with any alteration in sensation The subject is a thin but fairly healthy boy of thirteen who has never hitherto suffered from any neurotic affection The affection was first noticed in the skin behind the knee joint, which became thickened and roughened, and was red and itchy This condition slowly extended downward to the little toe and upward to the buttock The eruption is dark red in color, covered in many parts by thin scales or scabs, distinctly raised, margins well defined, broadest on the most prominent part of the buttock (2 inches) where it appears to be frayed into three diverging portions, from the prominence of the calf it forms a regular curve downward and inward almost to inner aspect of leg, and then downward and outward to a point over the insertion of the tendo Achillis, it then bends sharply round the heel, and passes along the outer margin of the foot until the proximal end of the metatarsus is reached, when it curves upward onto the dorsum of the foot, and ends abruptly at the base of the little toe, where it is about ½ an inch broad

After the continuance of this eruption for eighteen months, the neighboring skin being perfectly healthy, an attack of herpes zoster developed on the opposite thigh Near the sacral end of the crista ilii, and parallel with it, is an oblong patch of characteristic vesicles, two inches long and one inch broad A similar patch is situated five inches below the great trochanter Another broad patch extends almost continuously downward and inward for seven inches, from a point below the anterior superior spine of the ilium, and a smaller patch, arranged in a parallel line to this, is placed over the lower part of Scarpa's triangle

The original eruption differs from herpes zoster in its characters and lengthened duration, and in the relation of the eruption to the nerves affected In herpes the eruption corresponds to scattered cutaneous twigs, here is the course of the main trunks of the nerves The disease was apparently confined at first to the small sciatic nerve, but afterward attacked the short saphenous nerve, and so may be supposed to be dependent on some central changes in the ganglia of the cord

MARTIN'S METHOD OF TREATING SYNOVITIS, ESPECIALLY OF THE KNEE JOINT —In a communication to the *Medical Record*, of February 7, 1885, Dr Francis C Martin, of Roxbury, Mass , says During the past thirty-one years, over 400 cases of synovitis of the knee and its sequelæ, of every form and degree of severity, in every variety of diathesis and complication, however chronic or acute, have been treated by the use of the pure rubber or "Martin" bandage—applied to the limb from the foot to above the knee The joint is previously strapped from three inches above to a corresponding point below the patella, with non-irritating rubber plaster This strapping is not applied for the ordinary reasons, but to obviate, or at least mitigate, a troublesome chafing of the skin in the popliteal space, from walking exercise while the bandage is on the limb One such strapping will remain *in situ* for four or five weeks, and in a very large proportion of cases has not to be repeated The plaster, however, must be perfectly non-irritating The bandage should be applied as tightly as the patient can wear it with comfort There is no danger to the circulation by following this rule, as no dangerous constriction of the limb could be endured without pain and discomfort The bandage thus applied should be worn generally for from four to six weeks, according to the severity of the case, day and night , and, after that, during the day only, or while in the upright position, for from four to eight weeks longer Many patients prefer to wear them a good deal longer, to prevent any possible return of trouble, but this is in general not at all necessary

When the bandages are thus applied, great comfort and support are at once experienced, and with these much increased capacity to use the joint Very soon it becomes evident that absorption of effused fluid, and of the interstitial deposits in the tissues of the synovial sac, and of the other tissues about the joint, is going on , and, in a space of time too short to be credible to those who have not accurately pursued the practice, and carefully and repeatedly observed the fact, the enlarged and weakened articulation is restored to the normal size, and, if not immediately to its original strength, to a far greater capacity for use, and eventually to a perfect restoration in all respects

In cases in which the amount of fluid effusion within the sac is small, or where the thickening of the sac is the principal element of the case, these results may be always looked for with certainty and rapidity Sometimes, however, when the amount of fluid effusion is very large, the use of the bandage *alone* (although of the greatest value as a palliative, by strengthening the joint, and permitting painless use of the limb) will produce *complete* absorption of the fluid very slowly, if at all The existence of these exceptionally obstinate cases induced my father, some twelve years ago, to add to the use of the bandage a preceding thorough aspiration of the sac, all the other points of treatment being exactly as before described This was done at first only in exceptionally obstinate cases, in which the effusion within the synovial sac was large, but the operation was gradually found to be entirely free from danger, and latterly aspiration has been practiced in all cases in which, being chronic, the synovial effusion is of any considerable amount, and even in the most acute cases in which rapid effusion produces great distension and consequent pain The results of my father's experience are summed up in the following statements

1 In the last twelve years over 200 cases of synovitis of the knee, and its sequelæ, have been treated by aspiration with a single strapping of the joint, and subsequent use of the bandage

2 In these cases the knee-joint has been punctured over 400 times

3 In all these cases, with the exception of a very few, and these only in the early stages of treatment, the patient was not only permitted, but obliged to take a daily and considerable amount of walking exercise

4 In not a single instance has there been failure of absolute and entire cure, requiring, in one case, seventeen weeks, but in no other more than eleven weeks

5 Although no antiseptic measure, beyond perfect cleanliness of the aspirating needle, was employed, in not one instance has any ill symptom followed the operation When the needle is withdrawn, the puncture is at once covered securely with adhesive plaster

SYPHILITIC ANEURISMS M Verdier (*Revue de Therapeutique*) states that

1 Syphilis is a determining cause for a variety of extensive lesions gummous arteritis, sclerous arteritis, endarteritis, atheroma , these lesions have no specific or pathognomonic character

2 Clinical cases, rather than pathological anatomy, establish this etiological relation, and demonstrate that syphilitic aneurism resulting from preceding lesions is an affection that is relatively frequent, but the numerical proportion has not been exactly defined.

3 Aneurism occurs in the tertiary stage of syphilis after a variable period, the medium date of which is almost eleven years It may affect all the arteries those of the brain, the aorta, and of the extremities

4 As far as the symptoms and progress are concerned, these aneurisms do not differ from those arising from other etiological causes

5 Specific treatment sometimes, but rarely, exerts a curative action , generally it is only palliative, producing a temporary amelioration without checking the progress of the disease, which frequently terminates by death Iodide of potassium is the basis of this treatment, electro-puncture being used in absolutely desperate cases

SURGERY

COCAINE IN LITHOTRITY —The *Lancet* reports that a lithotrity, with rapid evacuation of the fragments (Bigelow's operation), was performed under cocaine at the St Peter's Hospital with perfect success The bladder was injected with half an ounce of a four per cent solution of cocaine, and the operation was begun and completed *painlessly* in a quarter of an hour

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY APRIL 11, 1885

CARDIAC ASPIRATION

The January, 1885, number of the *American Journal of the Medical Sciences* contains a paper, by DR A H P LEUF, of Brooklyn, on "A Peculiar Form of Pulmonary Congestion not Generally Known and Terminating in Sudden Death, together with a Plea for Cardiac Aspiration " The author announces that his two objects in writing the paper are to call attention to this peculiar form of pulmonary congestion and to enter a plea for cardiac aspiration

The symptomatology of these cases, as described by Dr Leuf, is but meagre, the duration is short, probably not exceeding twenty to forty-eight hours, and he is inclined to fix the mean duration at about six or eight hours The affection occurs more often in males, it may or may not be attended with unilateral pain, there may be a sense of impending danger, or it may be absent, but the almost invariable symptom is oppressed respiration The breathing is described by the patient as rather difficult and unsatisfactory, and a feeling of weariness is complained of In one case, that of a full-blooded young man, talking became more and more difficult, and in a short while he reeled off his chair dead The most marked symptoms, then, are the oppression of breathing and the sense of impending death

As regards the pathology of the affection, Dr Leuf, who has made quite a number of post-mortem examinations of persons dead of it, states that in all his cases " both lungs were affected, and to the same extent with only a few exceptions " "With rare exceptions, the lungs were uniformly affected, there being no patchy appearance on section and no evidence of either ante-mortem or post mortem gravitation of blood " The narrow apex or sharp anterior margin was as full of blood as the rounded posterior border or the broad base resting upon the diaphragm Similar conditions would be noticed throughout the same organ without reference to the laws of gravitation When the congestion is uniform, the lung appears, on section, as black as ink, and slight pressure causes an exudation of thick and perfectly black blood "

The state of the heart and great vessels is what would be supposed from the condition of the lungs Dr Leuf "invariably found the right side enormously distended and the *osteum venosum* entirely incompetent, with its tricuspid valve, to stem the return flow from the right ventricle, thus practically throwing the right auricle and ventricle into one large auriculo-ventricular cavity The left heart is invariably either empty or contains but a very small quantity of blood The pulmonary veins are also empty, or very nearly so I have always found the whole heart relaxed Not more than three or four of all the cases in this class that have come under my observation during the last two years presented any valvular disease The peripheral veins, however, are in all cases empty and collapsed, and in anæmic cases even the *vena portæ* and its tributaries are almost entirely devoid of blood "

We have quoted thus fully from the article in question, on account of the bearing of the symptomatology and pathological appearances upon the treatment proposed by the author, cardicentetis At the autopsy, "almost all the blood is found pent up in the *venæ cavæ*, right heart, pulmonary artery, and lungs The pulmonary veins, left heart, arteries, systemic capillaries, and peripheral veins, are either entirely or almost devoid of their usual contents At first there is but slight disturbance of the equilibrium between the pulmonary and systemic circulations Steadily, but surely, this disproportion between the two sides increases The arterial side of the circulation is losing its blood constantly in greater amount than it is supplied from the lung by the pulmonary veins In time the lungs become surcharged with blood The air chambers are diminished in size, on account of the tumefaction of the interstitial structures of the lung, by the enormous dilatation of the gorged capillaries What blood does pass to the left heart, then, is very poor in oxygen The right heart begins to experience the pressure of the blood that is being pumped on by the poorly oxydized left ventricle, the arteries and the capillaries Soon the pressure becomes too much The openings of the right ventricle begin to dilate, and their valves become incompetent to check the return flow of the current The right ventricle forces some of its contents into the pulmonary artery and lungs, to have a share of it regurgitated a moment after In the same way the right auricle works with only partial success, for, in consequence of the dilatation of the *osteum venosum*, the tricuspid valve is ineffectual in preventing the back flow of blood While, at first, the amount of regurgitation is small, it gradually increases so as to amount to more than that which enters the lungs, and eventually hardly any passes to its normal destinatior, and nearly all the blood simply moves up and down in a continuous column, extending from the division of the pulmonary artery through the right ventricle and auricle into the upper and lower *venæ cavæ* That the patient should be able to survive long with a heart in this condition is an impossibility His exhausted heart yields in despair in a brief period unless prompt relief is afforded "

There is no one, we believe, who will not agree with the author, that the treatment of this affection should be prompt, decisive and radical, and the means he believes to be cardiac aspiration Two articles have appeared, during the past three years, advocating cardicentesis, the first, by Dr B F Westbrook, of Brooklyn, in the *Medical Record* of December 23, 1882, the second, by Dr John B Roberts, of Philadelphia, in the *Medical News* of January 13, 1883, which have excited a good deal of interest in the subject, and not a little criticism Apart from the other affections for which the authors of the papers referred to have recommended that it be performed, in the consideration of the cases described by Dr Leuf, two questions at once arise Are these cases necessarily fatal without an operation for the relief of the distended heart? Would cardicentesis probably prove fatal *per se?* Or, the second question might be put, Would cardicentesis, even if it relieved the heart, always prove fatal? "The immediate danger is not from asphyxia, but from heart failure, due to over-distension of the right side, and gross incompetence of the valves guarding the two orifices of the right ventricle" We believe that no one, however conservative or critical he may be, will gainsay this statement So far as can be judged, these cases *are always* fatal, or have been, and any measure which would probably give relief, short of certain death to the patient, is judicious, advisable and surgical Phlebotomy has been advised as the proper operation, under these circumstances, but Leuf very properly says that it is extremely unadvisable and dangerous, as would be arteriotomy The trouble is not in the general, but in the pulmonary circulation, and in the right heart

As regards the second question, cardiac aspiration is not necessarily fatal, nor is it probably fatal in the hands of one who knows his anatomy It has been repeatedly shown that heart *wounds* are not necessarily fatal, and there is a probability, which almost amounts to a certainty, that a skillfully directed needle would allow blood to be abstracted from the heart, and relieve the distension, and leave no trace in the heart that it had been carried into it The objections to the operation, that a great venous trunk might be wounded, that the movements of the heart would enlarge the orifice made by the needle, that hæmo-pericardium *might* be caused by the puncture, that the tenuity of the auricular wall might cause it to tear by the motion against the needle, are, as Leuf shows, practically groundless

Finally, if the operation is justifiable and necessary, it is not to be resorted to only when the patient is *in extremis*, to delay an operation until a patient is practically dead is negligent, unwise and unsurgical.

CHEYNE STOKES' RESPIRATION

In this form of dyspnœa the respirations are at first very shallow, scarcely perceptible, but increase in depth and rapidity until the acme is reached, after which they decline in vigor and frequency, at length ceasing altogether After a short period of apnœa the same phenomena are repeated, an interval of rest succeeding each cycle of respiratory efforts It was first described by the observers whose names it bears It is seen in cases of organic heart disease and lesions of the brain, injuries involving the respiratory centre, cerebral hæmorrhage, etc In pressure upon or injuries of the medulla, it is not difficult to understand the occurrence of this respiratory disorder, but the reason for its presence in organic diseases of the heart is not readily understood, and hence the theories offered to explain it. Whatever be the mode of its production, one thing is certain, it is a precursor of an earlier or later death

Tizzoni has recently performed two autopsies which he thinks throw some light upon its pathology. One was a case of organic heart disease, in which the phenomenon under consideration was observed for forty days prior to death Here the pneumogastric nerves were involved in inflammatory change, which in the left nerve was peripheral, but in the right reached into the bulb In the medulla the alterations were found *in foci*, while they were most marked beneath the ependyma above the longitudinal furrow of the calamus scriptorius In the second case, one of uræmia in which the Cheyne-Stokes' respiration had existed but a few days, similar changes were found in the superior half of the bulb, while the vagi were free One case of organic heart disease, with such *post-mortem* appearances, is not sufficient to establish any definite etiological relation between these and the disorder of respiration in question, yet, since the second case lends to it something of confirming evidence, this discovery of Tizzoni's will probably prove of value in leading the way to further investigations

In connection with this subject, it may be of interest to briefly notice the most important theories proposed in explanation of the phenomenon Traube suggested that the respiratory centre loses in irritability owing to the imperfect oxygenation of the blood, and that a considerable accumulation of carbonic acid becomes necessary in order to stimulate the centre to an adequate performance of its function Time for this accumulation is afforded by the period of apnœa The respiratory centre is now stimulated, respiration begins, at first slowly and inadequately, but soon increases in vigor until the blood becomes so arterialized as to fail to any longer excite discharges from the centre, in consequence the respiratory efforts grow gradually feebler until they stop entirely According to critics this theory is defective, since it contains a contradiction It starts with the assumption that deficient oxygenation of the blood lowers the irritability of the respiratory centre, while later on, as this condition increases, the centre becomes stimulated To obviate this objection, Dr Sansom has modified Traube's explanation by assuming a partial paralysis of the respiratory centre as the primary condition, to which he then adds the latter half of Traube's theory This paresis may be produced either indirectly by "reflex nerve influence," or is "a direct exhaustion from cerebral causes"

Filehne offers still another explanation, he assumes that the deficient supply of oxygen in the blood primarily stimulates the vaso-motor centre, which consequently leads to the contraction of the arterioles throughout the body and of course within the medulla This spasm of the arterioles still further diminishes the amount of arterialized blood supplied to the respiratory centre, which in its turn now becomes aroused into action Dyspnœa results, respiratory efforts are evoked, and as they grow more and more vigorous the blood becomes quickly oxygenated, stimulation of the vaso motor centres is now lessened, and when the arterial spasm ceases, oxygenated blood is supplied to the respiratory centre, it is, therefore, no longer prompted to perform its function, and apnœa gradually supervenes Bramwell, very justly, we think, objects to Filehne's theory as inadequate, on the ground that there must be some condition back of it all which renders the respiratory centre abnormally sluggish Were this not so, apnœa ought to be vastly more common than it is, for conditions often arise in health where purely arterial blood is supplied to the centre in question, yet without any failure of function on its part, such as Filehne supposes in his endeavor to account for the apnœa in Cheyne-Stokes' respiration This essential primary lesion Bramwell accounts for upon the hypothesis of "irritable weakness" of the respiratory centre, and upon this bases his theory He reasons briefly as follows "The respiratory centre in the medulla oblongata probably consists of two parts"—an inspiratory and an expiratory Furthermore, in accordance with the teachings of Rosenthal and Foster, he subdivides the inspiratory centre into two portions—one the discharging, the other the restraining or inhibitory These two parts are probably acted on differently by the same stimuli, that is, venous blood stimulates the discharging and depresses the inhibitory portion, while arterialized blood acts in a reverse manner Now, if with Bramwell we suppose the discharging division to be in a state of "irritable weakness," the mechanism will be as follows At the close of the stage of apnœa, the accumulation in the blood of carbonic acid excites the discharging portion of the inspiratory centre, and represses the inhibitory Consequently a series of respirations is elicited which, at first feeble, augment in force, until the blood becomes oxygenated The discharging centre, already weak, is soon exhausted, and lacking the spur of carbonic acid, it yields to the supremacy of the inhibitory centre, which has now become stimulated by the oxygen, the respirations grow weaker and weaker, until at last superseded by the stage of apnœa Carbonic acid now accumulates, and the cycle is repeated

Dr Bramwell supposes that the vaso motor centre is also stimulated by an excess of carbonic acid, and that the ensuing contraction of the arterioles aids indirectly in the stimulation of the discharging centre by diminishing the blood supply to the medulla, and that the cessation of the vascular spasm, following the arterialization of the blood, by flushing the inhibitory centre, aids it in its struggle for the upper hand There are still a few points of interest to be considered, but, as space is limited, they will have to be deferred for a subsequent issue

THE MICROBE OF MUMPS

While Koch, Finckler and Prior, and the English cholera commission, have been devoting their energies to the comma-bacillus, Freire his to the micrococcus xanthogenicus, and Seifert his to the bacillus of influenza, the microbe of mumps has been driven from his hiding places by DR BOINET Already, in 1881, had Capitan and Charrin declared that they had discovered a microbe in the blood and saliva of six victims to the annoyance of parotitis, and later they were seen by Bouchard and Netter Boinet has cultivated these microbes to the fourth, fifth and sixth generation True, his inocular experiments on rabbits have not been very successful, but they should have been made on the human being, for two reasons First, rabbits are seldom troubled with mumps, so far as known, second, according to Mr Henry Bergh, such experiments on the lower animals are cruel and useless, as the rabbits are subjected to unnecessary torture during the experiment, and there is a possibility that the experiment will succeed and the rabbit will be practically unsexed, should he be an adult and have the usual testicular accompaniment of this mysterious disease

There is no reasonable doubt that inoculation experiments should be made, for, if successful, vaccination for mumps would become very popular among the male members of a community—at least with those who have never been afflicted with this dangerous affection Is it too much to hope that some of the first investigations made in the Carnegie Laboratory will be upon this subject? They have Mr Bergh at hand, where he can be captured at an hour's notice, and it is to be supposed that he will cheerfully allow experiments upon himself However, after reading his more recent contributions, there may be a question in the minds of some as to whether he is a male

NINTH INTERNATIONAL TRIENNIAL MEDICAL CONGRESS

As everything relating to the proper organization of the International Medical Congress to be convened in this country in 1887, is of interest not only to the profession of this country, but to that of the countries of Europe also, we publish in full in this issue of the JOURNAL the rules and preliminary organization, so far as it has been completed by the general committee on organization The *Council* for each section is intended to constitute a nucleus of active working members in the department to which the section relates, and may be added to by the executive committee as circumstances shall indicate

METEOROLOGICAL, CLIMATIC AND SEASONAL MAP OF THE UNITED STATES Prepared by Charles Denison, M D, Denver, Colorado, and published by Rand, McNally & Co, Chicago This map has been prepared with great care and from the most authentic sources of information by Dr Denison, and will be found by the practitioners of medicine one of the most convenient and useful works for reference, to ascertain the special climatic characteristics of any locality in our widely extended territory, that have been hitherto devised For further details concerning it see the advertisement in the advertising columns of this issue

SOCIETY PROCEEDINGS

CHICAGO GYNÆCOLOGICAL SOCIETY.

(*Concluded from page 329*)

DR HENRY T BYFORD then read a paper entitled

FUNCTIONS OF THE MEMBRANES IN LABOR[1]

DR BYFORD discussed fairly, clearly and forcibly the possibility, probability and utility of the preservation of the membranes from rupture until they dilate, or aid in dilating the vulvo-vaginal orifice, as well as the cervix The possibility and probability are not only matters of reason, but, under the given appropriate management have stood the test of experience in the author's practice

The utility lies in the substitution of a soft bag for the hard, rough, unyielding head as a dilator, in the retention of the amniotic fluid in the parturient canal as a cushion, protector and lubricator, but chiefly in the *manner* of dilating the vulva and perineum, viz by making the axis of the vulva correspond with the axis of the presenting part *before* its exit The perineum is stretched along its lateral diameters only, while the fourchette descends to within half an inch of the anus This brings the transverse muscular fibres of the perineum nearer together, instead of further apart, and renders their rupture a matter of proportionate difficulty All artificial interference in dilating the perineum should be based upon this mechanism

DR W W JAGGARD, while not prepared to accept the thesis of the paper as a universal proposition, thought the attention to the functions of the membranes advised by Dr Byford would go far to prevent cervical, vaginal and perineal lacerations in many cases

DR D T NELSON said the membranes, when adherent to the cervix, as pointed out by Dr DeLaskie Miller, delayed labor Under these conditions puncture of the membranes was indicated In practice he tried to find out whether or no the membranes were adherent to the cervix If adherent, he punctured the membrane, if free, he always waited for spontaneous rupture

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[1] Which will appear in full in the *Chicago Medical Journal and Examiner*

Dr Philip Adolphus agreed with the author of the paper in his conclusions, except in case of hydramnion Under such pathological conditions it was frequently necessary to rupture the membranes, in order to secure uterine contractions

Dr J Suydam Knox was in the habit of aiding dilatation of the vaginal os with the finger He was under the impression that the membranes were seldom operative in the dilatation of the vulvo-vaginal orifice

Dr Edmund J Doering had followed Dr Byford's suggestion during the past year, and believed the method had prevented perineal lacerations in many cases Premature detachment of the placenta was a possible danger from delayed rupture of the bag of membranes

Dr Edward Warren Sawyer believed that the membranes should not be punctured until the *os uteri* was dilated to the extent which the pelvis, in the concrete case, would permit The function of the bag of waters in labor was the dilatation of the *os uteri* He ruptured the amnion in one-half his cases There was as great variation in the development of the uterine muscular tissue as in the development of the biceps Retardation of rupture of the bag of membranes might lead to uterine inertia, or to premature detachment of the placenta To follow nature's suggestions was a beautiful theory, but nature caused the membranes to be ruptured, in the majority of cases, before dilatation of the vaginal os He was in the habit of aiding dilatation of the cervix by the introduction of one or two fingers within the canal of the cervix, he also tried to peal off the membranes around the internal os, and was conscious that he had *materially influenced*, in a favorable direction, the process of parturition

The periphery of the *os uteri* was less than the periphery of the vaginal orifice It was inconceivable, under such physical conditions, that the bag of membranes, protruding through a smaller, could dilate a larger orifice

Dr Charles Warrington Earle agreed with Dr Sawyer, that natural processes *should* be imitated in the puncture of the bag of membranes after complete dilatation of the *os uteri*

Dr H P Merriman thought Dr Byford's paper contained excellent advice for the young practitioner The thesis could not be accepted as a universal proposition Dr Sawyer and Dr Earle had pointed out the conditions, in which the application of the method was contraindicated

Dr Henry T Byford, in conclusion, said that he had distinctly *pointed out* in his paper that the retardation of rupture of the membranes was advisable only in perfectly physiological labors The members of the society had called attention to pathological conditions to which the method did not apply

Dr Sawyer had read a paper on "Occipito-posterior Positions," before the American Gynæcological Society, during October A plausible explanation of the fact that anterior rotation did not occur in Dr Sawyer's *thirty-nine* cases might be found in the premature rupture of the membranes

Dr Byford claimed that the natural processes were not imitated, but interfered with, by rupturing the membranes at the complete dilation of the os uteri

Dr Charles Caldwell was then elected Fellow of the Society

Stated Meeting, March 20, 1885

The President, H P Merriman, M D, in the Chair

Dr J Suydam Knox read a paper entitled

THE INFLUENCE OF CIMICIFUGA RACEMOSA (BLACK COHOSH) UPON PARTURITION

After a *résumé* of the medical history of the drug, Dr Knox gave the results of his clinical observations in one hundred and sixty cases of labor,—fifty-seven primiparæ, ninety-three multiparæ—in which black cohosh had been exhibited The average duration of the first and second stages of labor, in normal cases, in primiparæ, was seventeen and three hours respectively Under the influence of black cohosh, the duration of the first and second stages of labor, in the fifty-seven cases observed, was six and one quarter and one and three quarters hours respectively The average duration of the first and second stages, in normal cases, in multiparæ, was twelve and one hours respectively Under the influence of black cohosh, in the ninety-three cases observed, the average duration of the first and second stages was three hours and twenty seven minutes respectively

From these clinical observations Dr Knox drew the following conclusions

1 Cimicifuga has a positive sedative effect upon the parturient woman, quieting reflex irritability, nausea, pruritus, and insomnia, so common in the last six weeks of pregnancy, it always renders them less distressing, and they often disappear under its administration

2 Cimicifuga has a positive antispasmodic effect upon the parturient woman The neuralgic cramps and irregular pains of the first stage of labor are ameliorated, and often altogether abolished In fact during the first indiscriminate use of the drug in all cases, I had the mortification, with a few women, of terminating the labor so precipitately, and without prodromic symptoms, as to be unable to reach the bedside before the birth

3 Cimicifuga relaxes uterine muscular fibre, and the soft parts of the parturient canal, by controlling muscular irritability, thus facilitating labor and diminishing risks of laceration

4 Cimicifuga increases the energy and rhythm of the pains in the second stage of labor

5 It is my belief that cimicifuga, like ergot, maintains a better contraction of the uterus after delivery

It is his habit, however, to administer fifteen to thirty minims of the fluid extract of ergot after the birth of the fœtal head, and he has had but few opportunities of testing this effect of the cohosh

His method of administration has been to give fifteen minims of the fluid extract of cimicifuga in compound syrup of sarsaparilla each night for four weeks before the expected confinement One fluid ounce of the fluid extract of cimicifuga to three fluid ounces of compound syrup of sarsaparilla,—dose, one teaspoonful,—makes just the required quantity

Dr Philip Adolphus had employed the cohosh, in the manner indicated by Dr Knox, in one case with negative results

Dr Edward Warren Sawyer thought the results obtained by Dr Knox were astonishing He thought there could be no doubt but that the drug had the physiological action to which allusion has been made He would at once act upon the suggestion in his private practice

Dr W W Jaggard thought that if the influence upon parturition, so clearly sketched by Dr Knox, was capable of demonstration, he could agree with Dr Sawyer's panegyric Dr Knox's carefully prepared paper was worthy of study and investigation Dr H Webster Jones, formerly a prominent obstetrician in Chicago, had advanced similar views with reference to the physiological action of black cohosh, in a paper published in the *Transactions of the Illinois State Medical Society*, a few years since Dr Jones' advocacy of the drug as an oxytocic was well known to every practitioner in the city

Dr Jaggard desired to call the attention of the Fellows to the following subjects in Dr Knox's paper

1 Dr Knox had stated that the average duration of the first stage of labor in primiparæ and multiparæ was respectively seventeen and twelve hours, under the influence of black cohosh the duration of this stage was abbreviated to six and one-quarter and three hours respectively It was a matter of extreme difficulty to define the limits of the duration of the first stage of labor with such mathematical accuracy The "personal equation" assumes great importance as a possible source of error The subjective signs and physical exploration are not always sufficient to justify the diagnosis of the commencement of labor Thus Dr R Lumpe (*Archiv fur Gynakologie*, 1883, Bd xxi, Hft 1, p 29) concludes, from the observation of several hundred primiparæ, that the cervical canal begins to dilate from eight to fourteen days before the expulsion of the child Other observers assign a period of much briefer duration than the typical seventeen hours of Spiegelberg, to which Dr Knox alludes Apart from the difficulty in the determination of the commencement of the first stage, the duration is capable of infinite individual variation

2 One hundred and sixty cases were insufficient to warrant such positive deductions upon an intricate therapeutical problem In every one of the cases, cited by Dr Knox, it was clearly indeterminate whether or no the effect was *post hoc* or *propter hoc* Black cohosh had been employed on an extensive scale, in large lying-in hospitals in Germany Every condition for accurate clinical observation had been supplied Such conditions were competent observers, numerous cases, under absolute control, for a sufficient period of time, chemical purity of the drug, and an approximately perfect system of keeping records Up to the present time, results had been of a purely negative character It was true that Schatz had reported favorably, as to the action of the drug in the treatment of certain pathological conditions of the uterus

Dr Jaggard did not wish to be understood as dogmatically condemning the drug The evidence in favor of its action as an oxytocic, as collected from experiments upon the lower animals, or from clinical observation, was entirely insufficient to warrant the positive conclusions of the author of the paper The subject was worthy of further investigation

3 He thought the practice of the exhibition of ergot before the completion of the second stage of labor was reprehensible It was in conflict with the obstetrical principles of the day, as deduced from clinical experience and the nature of the case This remark was applicable exclusively to physiological labors

Dr Charles Warrington Earle had used black cohosh, at the suggestion of Dr Jones and Dr Knox, in a variety of cases, with negative results He had about the same number of precipitate labors as occurred in his practice prior to the introduction of the drug It was possible that he had not employed doses of sufficient size, nor for a sufficient length of time before labor

Dr Henry T Byford wished to enter a protest against all methods of rendering the process of labor shorter Quick labors were wrong labors, as a rule

Dr George M Chamberlain had no experience with black cohosh, but he was opposed to the exhibition of ergot before the expulsion of the child in physiological cases

Dr Knox closed the discussion In reply to Dr Jaggard, he said that the results of his clinical experience with black cohosh were of such a convincing character that he would continue the exhibition of the drug in the future In regard to the exhibition of ergot before the expulsion of the child, he did it to save time The drug was not absorbed until twenty minutes after exhibition, and long before the expiration of that time the child was born He could not spare the twenty minutes required to secure retraction of the uterus, after delivery of child and placenta In reply to Dr Byford, he said that at the present day there were no physiological labors Women were not Eves By the judicious use of a drug like black cohosh, labor was made to resemble the ideal physiological process, as still observed among savages

The secretary then read the inaugural thesis of Dr **Edmund J Doering** (M D, Chicago Medical College, 1874), entitled,

SOME REMARKS ON THE VALUE OF PERMANGANATE OF POTASH IN AMENORRHŒA

After a brief description of the physical and chemical characters of the drug, Dr Doering discussed its physiological action Bartholow, who has great faith in the drug, claims that although it parts with its oxygen with great readiness, this readiness is not sufficiently great to prevent the distribution of the gas into the blood "His opponents deny this, and argue that the organic matter contained in the stomach and mucous membranes is sufficient to appropriate the oxygen of the salt, and thus prevent its entrance into the circulation "

Professor Gray Bartlett, a Chicago chemist, gives the following opinion "From the readiness with which the permanganate of potassium is decomposed by organic compounds, it would seem to be ineligible for internal use When so administered, it is immediately brought into contact, in the stomach, with a relatively large amount of organic matter, and most necessarily is very rapidly destroyed, the manganese of the permanganate separating, in all probability, in the form of the hydrated manganese dioxide The latter compound is an active oxidizing agent, and is possibly capable of exercising in the economy the oxidizing function, which has been ascribed to the permanganate of potassium It would seem rational, therefore, anticipating the change which follows the administration of the permanganate, to substitute the hydrated dioxide of manganese, which can readily be prepared in a state of purity for medical use "

Whatever view may be adopted as to the chemical change which the permanganate undergoes in the human economy, the main question is as to its therapeutic value Professor T Gaillard Thomas, in his address to the *New York State Medical Association*, expresses faith in the value of the drug as an emmenagogue Dr Ringer and Dr Murrell recommend the remedy Dr Doering had given the drug a careful trial in thirty cases of amenorrhœa, depending upon anæmia and general atony of the sexual apparatus In about half the cases the observations were unsatisfactory from various causes, *i e*, inattention to the general directions, want of perseverance in taking the medicine, so that the conclusions arrived at were based upon fourteen cases, in each of which the cause of the amenorrhœa was entirely clear, the remedy carefully and continuously given, and the effect clearly observed The cases were tabulated

Dr Doering draws the following conclusions

1 Permanganate of potash in doses of from two to four grains is an efficient emmenagogue, if administered for a period of not less than two weeks

2 Its administration in doses large enough to be effective is accompanied by severe pain, which frequently necessitates a discontinuance of the remedy, and hence impairs its value as an emmenagogue

3 The most efficient method of administering the drug is in capsules, taken midway between meals, and followed by large draughts of some pure mineral water, like Silurian

Dr Doering was elected Fellow of the Society

STATE MEDICINE

SANITARY SURVEY OF ILLINOIS, AND HOUSE-TO-HOUSE INSPECTION.

In connection with the Sanitary Survey of the State and House to House Inspection, now being prosecuted under direction of the State Board of Health with reference to the probable appearance of Asiatic cholera in this country, the Board has just issued circular letter No VI, addressed to the county clerks, and requesting that the work of getting public institutions into good sanitary condition be completed with as little delay as possible Much work of this character was done during the past summer and fall, in response to the circular letter of the Board issued in July last But, in addition to what remained to be done when cold weather suspended operations, there must since have accrued, in many cases, accumulations of filth and refuse which should now be promptly removed, defects in plumbing, drainage and sewerage, disclosed during the winter, should be repaired, and the effects of the occupancy of dormitories, workshops, wards, cells and other apartments should be remedied by a thorough spring cleansing

The officers in charge of almshouses, jails, and other public buildings under control of the County Board, are notified to commence this work at once Very much that requires to be done—scrubbing whitewashing, removal of garbage and refuse, the emptying and disinfection of vaults and cesspools, the opening up and cleaning out of drains, sewers and ditches—can be performed by the employes and inmates of the institutions

Especial attention should be given to the location and condition of privies and water-closets at these places, as also at courthouses and elsewhere Vaults should be emptied before warm weather makes such work dangerous, and then be thoroughly disinfected with sulphate of iron (copperas) Where these vaults are within fifty feet of any source of water supply—well, spring, pond, lake, or running stream—their further use should be abandoned, and, after being emptied, they should be disinfected and filled up with clean, dry earth—one of the best disinfectants The new vault should not be less than fifty feet from the nearest water supply, should be water-tight, ventilated by a four-inch shaft, opening above the roof, the contents should be kept inoffensive by the use of some cheap disinfectant, and the building and its surroundings should be kept in the cleanest attainable condition Where practicable, the substitution of the earth-closet system for the subterranean vault storage is recommended In either case the frequent removal of the contents, and their safe disposal, by use as fertilizers, are necessary sanitary measures

The source of the water supply, and its storage and distribution, should be carefully inquired into, and all possible causes of pollution should be removed A pure water supply is of the first importance to health under all circumstances, but among numbers of persons living under the conditions which obtain in county institutions, its importance is increased Epidemics of diarrhœa and dysentery may be caused by impure water, while typhoid fever and Asiatic cholera are spread more commonly through the water supply than in any other way

These remarks and suggestions will indicate the character of the work which the Board considers it desirable should be accomplished before warm weather sets in, not alone through fear of cholera, but in the interest of public health, and, consequently, of true economy

A similar circular was recently issued to railroad managers, setting forth that the spread of Asiatic cholera is due oftener to the pollution of the water supply than to any other one cause There is no more common mode of such pollution than through foul, badly-constructed and improperly located privies and water-closets The disease in this country being always due to importation, and its spread being most commonly by persons travelling from place to place, it follows that railway privies and water-closets are especially exposed to the danger of cholera infection In view of these facts, it is requested that all such places in connection with stations, freighthouses, shops and roundhouses be at once inspected and put in good sanitary condition

Reports have been received from nearly all the roads, and one of the most important lines has already completed the work indicated along the entire extent of its road

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THE NORTH CAROLINA STATE BOARD OF HEALTH.

The following bill was ratified by the North Carolina legislature on March 9, 1885

SECTION 1 Provides that six men shall be chosen by ballot by the State Medical Society, and that the governor shall appoint three other persons, one of which shall be a civil engineer

SEC 2 The "North Carolina State Board of Health" shall take cognizance of the health interests of the citizens of the State, shall make sanitary investigations and inquiries in respect to the people, employing experts when necessary, shall investigate the causes of diseases dangerous to the public health, especially epidemics, the sources of mortality, the effects of locations, employments and conditions upon the public health They shall gather such information upon all these matters, for distribution among the people, with the especial purpose of informing them about preventable diseases They shall be the medical advisers of the State, and are herein specially provided for, and shall advise the government in regard to the location, sanitary construction and management of all public institutions, upon application of the proper authorities, and shall direct the attention of the State to such sanitary matters as in their judgment affect the industry, prosperity, health and lives of the citizens of the State The Secretary of the Board shall make biennially to the General Assembly, through the Governor, a report of their work

SEC 3 Provides that the members elected by the State Society shall serve, two for six years, two for four, and two for two years Those appointed by the Governor will serve for two years

SEC 4 Relates to the officers of the Board, their terms of service and remuneration Each member, other than officers, will receive $4 *per diem*, and necessary travelling expenses while on active duty

SEC 5 There shall be an auxiliary Board of Health in each county in the State These Boards shall be composed of the physicians who shall have complied with the laws of the State in regard to the practice of medicine and surgery, or have a diploma from a regular medical college, the mayor of county town, chairman of the Board of County Commissioners, and the city surveyor, where there is such an officer, otherwise the county surveyor From this number one physician shall be chosen by ballot to serve two years, with the title of Superintendent of Health His duty shall be to gather vital statistics upon a plan designated by the State Board of Health He shall make the medico legal post-mortem examinations for coroner's inquests and attend to prisoners in jail, poorhouse, house of correction, and make examination of lunatics for commitment He shall be the Sanitary Inspector of the jail and poorhouse of his county, making monthly reports to the Board of County Commissioners His reports shall be made regularly, as advised by the State Board through their Secretary, and he shall receive and carry out, as far as practicable, such work as may be directed by the State Board of Health *Provided*, that if it is impracticable to get a county superintendent for any cause, then any one whose duty it is to provide such service, may employ any member of the County Board of Health to do anything required by this section

SEC 6 Relates to the Secretary of the County Superintendent of Health

SEC 7 Provides for the biennial election of officers for the State and County Boards

SEC 8 Monthly returns of vital statistics upon a plan to be made by the County Superintendent of Health, and a failure to report by the tenth of the month, for the preceding month, shall subject the delinquent to a fine of one dollar for each day of delinquency, and this amount shall be deducted from the salary of the Superintendent by the Board of County Commissioners on authenticated statement of such delinquency by the Secretary of the State Board of Health

SEC 9 Inland quarantine shall be under the control of the County Superintendent of Health, who, acting by the advice of the local Board, shall see that diseases dangerous to the public health, viz, smallpox, scarlet fever, yellow fever and cholera, shall be properly quarantined or isolated, at the expense of the city, or town or county in which they occur Any person violating the rules promulgated on this subject shall be guilty of misdemeanor, and upon conviction thereof shall be fined or imprisoned, at the discretion of the court In case the offender be stricken with disease for which he is quarantinable, he will be subject to the penalty on recovery, unless, in the opinion of the Superintendent, it should be omitted Quarantine of ports shall not be interfered with, but the officers of the local and State Boards shall render all the aid in their power to quarantine officers in the discharge of their duties, upon the request of the latter

SEC 10 Whenever and wherever a nuisance upon premises shall exist, which, in the opinion of the County Superintendent of Health, is dangerous to the public health, it shall be his duty to notify, in writing, the parties occupying the premises (or the owners, if the premises are not occupied) of its existence, its character, and the means of abating it Upon this notification the parties shall proceed to abate the nuisance, but failing to do this, shall be adjudged guilty of misdemeanor, and shall pay a fine of one dollar a day, dating from twenty-four hours after the notification has been served The amounts collected to be turned over to the County Treasurer, provided, however, that if the party notified shall make oath or affirmation before a magistrate of his or her inability to carry out the directions of the Superintendent, it shall be done at the expense of the town, city or county in which the offender lives In the latter case the limit of the expense chargeable to the city, town or county shall not be more than one hundred dollars in any case *provided*, further, that nothing in this section shall be construed to give the Superintendent the power to destroy or injure property, without a due process of law as now exists for the abatement of nuisance

SEC 11 Provides for vaccination, and the compulsory vaccination of all persons admitted into public institutions, the money for the vaccine to be furnished by the County Commissioners

SEC 12 Provides for bulletins relating to the outbreak of disease, and for the personal inquiry of the Board into any outbreak

SEC 13 Relates to the special and regular meetings of the State Board of Health

SEC 14 Provides for analyses for hygienic purposes, to be made by the State Chemist, such analyses to include soil, drinking water, articles of food, etc

SEC 15 For carrying out the provisions of this act two thousand dollars, or so much thereof as may be necessary, are hereby annually appropriated, to be paid on requisition signed by the Treasurer and President of the State Board of Health, and the printing and stationery necessary for the Board, to be furnished upon requisition upon the public printer, which shall not exceed two hundred and fifty dollars annually A yearly statement shall be made to the State Treasurer of all moneys received and expended in pursuance of this act

SEC 16 Provides for a contingent fund of $2,000, subject to the Governor's warrant, to be expended in pursuance of the provisions of the Act, when rendered necessary by a visitation of cholera or any other pestilential disease —*North Carolina Medical Journal, March, 1885*

FOREIGN CORRESPONDENCE

LETTER FROM LONDON.

[FROM OUR OWN CORRESPONDENT]

The Hunterian Oration —Volunteer Medical Association —The Gheel Colony —Antivivisectionists —Ipecac in Dysentery —A Rabbeth Medal

Professor John Marshall delivered the annual Hunterian Oration in the theatre of the Royal College of Surgeons before a more than usually distinguished audience The President, Mr Cooper Foster, occupied the chair The orator considered the mental attitude which "the founder of scientific surgery" would probably assume toward the active work and salient opinions of our times The revelations of microscopical research and the growth of a new department of anatomy, histology, would have delighted Hunter, and his acquiescence in the truth of a modified cell theory of the formation of tissues, and in the doctrine of the protoplasmic origin of animal and vegetable life, could be easily imagined Not only as a physiologist, but as a pathologist, Hunter was a great vivisector, and it might be taken for granted that he would rank himself with those who now claim the right of man, for beneficial purposes, or even in the pursuit of knowledge, to attempt to discover the processes of animal life by tests and trials on living animals While averse to unnecessary repeated experiments, his large views of the unity of the "principle of life" and of the community of organization and of action throughout the whole animal kingdom, would lead him to disregard the objections of those who insist on the uselessness of experiments on animals as far as concerns their application to man Hunter did not spare his own body, but subjected himself to an inoculation experiment of a very grave character, in order to test opinions on a pathological question, and to put to proof the efficacy of certain variations in treatment Since his time the inquiry as to the functions of the nerves and the nerve centres had made great strides, almost exclusively by means of experiments Had Hunter lived now he would have been a staunch evolutionist, his belief being that "from the variations produced by culture it would appear that the animal is so susceptible of impression as to vary nature's actions, and this is even carried into propagation" Hunter expressed the opinion that in time it might perhaps happen the human race should be exterminated by specific poison diseases, but he regarded it as more probable that many poisons were extirpated and that new ones might arise in their stead every day

The committee of the Volunteer Medical Association have placed a bearer company of the volunteer medical staff corps at the disposal of the Director General of the Army Medical Department for service in the Soudan The company consists mostly of medical students—sixty men—systematically trained in bearer and field hospital work

All who are interested in the lunacy question ought to read an article in the last *Revue des Deux Mondes* upon the colony of lunatics at Gheel, near Antwerp In the fifth century an Irish king fell in love with his daughter, Dymphne, and by the advice of her confessor she fled to Gheel Having been elevated to the rank of a saint, her shrine was, for some reason unknown, supposed to cure lunatics This led to their being brought to Gheel, and at present it is a sort of lunatic colony under government supervision In Gheel and the commune surrounding it there are 16,000 inhabitants Lunatics are sent there by their friends, or by other communes, or by asylums There is an infirmary where they are confined when dangerous, but by far the greater number are boarded out among the town and country people A wealthy lunatic pays up to 6,000 francs for his board per annum, a pauper lunatic, about one franc per diem He feeds like the family of the nourricier If his case be curable, he is visited once a week by a doctor, if incurable, once a month If possible he is induced to work, and he receives a trifle for his work, which he spends in extra comforts He is free to go about as he pleases all day within the limits of the commune Great supervision is exercised over the nourriciers to see that their wards are well fed and not ill treated If a lunatic runs away, the nourricier is fined 50 centimes for every five kilometres that the runaway has traversed before he is caught The cures are about 38 per cent, which is large, considering the number of incurable cases The lunatics seem perfectly happy, the fresh air and the association with sane people have the best effect on them There are now 1,663 in the town and commune The article has attracted much attention in England, and it is under consideration whether such a colony might not be established here, as since recent events private madhouses are probably doomed

The opponents of experiments on animals at Oxford are making another effort to put an end to the teaching and study of physiology in the University They have sent to every member of Convocation throughout the country invitations to attend and vote against a decree to provide for the annual expense of the physiological department It has become necessary to issue a counter manifesto, in which it is pointed out that the expenditure asked for is for instruction, not experimental research, and that its defeat would seriously interfere with the efficient carrying out of the arrangements now in progress for the teaching of medicine in Oxford, which teaching will have its seat in the new and very ornamental building in the park, now approaching completion The list of signatures comprises the names of the Dean of Christ Church and of nearly all the heads of colleges, as well as many well-known names in Oxford

At the meeting of the Medical Society of London Dr Macpherson read a paper pointing out the curious fluctuations in the popularity of ipecacuanha as a remedy for dysentery During the latter part of the seventeenth century the drug was introduced to European notice as being a useful remedy for dysentery, and from published accounts appears to have acted like a charm Helbetins considered it as much a specific for bloody flux as cinchona in malarial fever, or mercury in syphilis It appears to have continued a fashionable drug for half a century, when it fell into disgrace both in France and England Akenside used very very small does, one grain every six hours, but it was more generally prescribed either in one large dose or several small ones (five grains), repeated every hour until vomiting was produced Subsequently in the tropics very large doses, frequently repeated, were given, but eventually the drug was almost banished by mercury as a remedy for dysentery Dr Parkes, in 1846, said ipecacuanha was of quite secondary importance, still he recommended scruple doses Since 1858 the use of ipecacuanha had been the main feature in the treatment of dysentery, and though something must be put down to improved hygiene and the abandonment of bleeding, still the improved rate of mortality among troops pointed to the probability that the drug is really of use in saving life

The French now use the drug with much success among their troops stationed in China, where dysentery abounded After due consideration, Dr Macpherson fixed the proper dose at thirty grains He also referred to the fact that at present ipecacuanha had entirely replaced the calomel treatment, which was looked upon as a specific at the commencement of this century It was further pointed out that Mr Docker, a regimental surgeon, was the first to introduce the remedy into the British army He at first gave very large doses, but eventually found that three or four doses of twenty grains brought the disease promptly to a termination

It has been decided to offer £100 to the senate of London University toward the foundation of a Rabbeth medal, in commemoration of the devoted surgeon who lost his life through an attempt to relieve the sufferings of a child dying of diphtheria in the Royal Free Hospital The father of Dr Rabbeth has undertaken to found the proposed scholarship at King's College in memory of his son at his own expense, and the committee of the Memorial Fund have resolved to divide the funds which may be at their disposal on the 31st of March between King's College and Royal Free Hospital, toward the endowment of two children's cots By that date they hope their funds will have considerably increased

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LETTER FROM BERLIN

[FROM AN OCCASIONAL CORRESPONDENT]

Bacterium Culture —I have just received the copy of the JOURNAL containing my letters about "Bacteria Culture," and with your permission would like to add a little to what I wrote then

In saying that agar agar is prepared like gelatine, it should be mentioned that the percentage of agar agar is much less, only one to three per cent The dilution method (Verdunnungsmethod) of making a plate culture is especially advantageous, in that the quantity of material used as seed can be more easily controlled For this, in addition to the plate apparatus, there are necessary the usual platinum wire, which has a glass rod handle and which has its end bent into a very small circle, and three of the test tubes filled with gelatine, as before described, each containing one or two drachms (4–8 cc) of gelatine solution The gelatine having been melted in the tubes, the platinum wire is sterilized in the gas-flame and dipped into the material to be used as seed, one eyeful of which is transferred to a melted gelatine tube This is the first dilution and should be thoroughly mixed by shaking The platinum wire having been again sterilized in the gas flame, one or two eyefuls of the first dilution are transferred to a second melted gelatine tube, which is thoroughly shaken and forms the second dilution In the same way a third dilution is made This method of dilution, although savoring of homœopathic principles, is really the best and surest way to avoid using too much seed,—a fact I emphasized in my last letter

The first dilution is always thrown away, for it contains by far too much seed; the second dilution is generally used, and if one is very particular the third is still better. In making second and third dilutions, if the solution contain comparatively few germs, it may be necessary to take two or three eyefuls of the material, and one's experience soon teaches him just the quantity to be used.

The next process is to pour the mixture (either the second or the third dilution) on a sterilized plate which is perfectly level and cold. When the gelatine has hardened, the plate is put into its bell jars and kept at a suitable temperature for germination. One objection to this method, though not a very strong one, is that the colonies grow *in* the gelatine as well as on the surface. This method is not very suitable for agar agar cultures, owing to the high melting point. After colonies have formed, the plate is examined and studied under the microscope with a low power. Having found a typical and characteristic colony, a little practice enables one to pick it out, while under the microscope, by means of a properly shaped platinum wire, and thus by vaccinating a tube or a plate a pure culture is at once made. N.

DOMESTIC CORRESPONDENCE.

NEW YORK LETTER.

[FROM OUR OWN CORRESPONDENT.]

Antipyrin.—As the new antipyretic, antipyrin, is attracting a great deal of attention just now in the medical world, it may perhaps be of interest to know what the experience of some of the prominent New York physicians has been with it, as shown at the meeting of the Academy of Medicine last night, when a paper on this remedy and its effects was read by Prof. Wm. H. Draper. It is not necessary to refer particularly to the introductory part of the paper, in which Dr. Draper gave a *résumé* of the observations of European authorities in regard to the effect of antipyrin upon animals and man. Personally he had used it in the wards of the New York Hospital, and to some extent in private practice, since the first of October, 1884. The cases to which he directed attention on this occasion were all of typhoid fever, and twenty in number. Of the twenty, seventeen were in males and three in females, while fifteen recovered and five proved fatal. The highest temperature reached in any of the cases was in that of one of the patients who died. This was 107°.6, and it occurred on the twenty-fourth day of the disease. In the case in which the temperature was the highest among those which recovered, it ranged from 103° to 106°.6. Vomiting was quite a frequent symptom, and there was sweating in a considerable number, while nervous symptoms were relatively few. Of the fifteen cases in which recovery took place, there was diarrhœa in seven and constipation in eight.

In giving antipyrin the method of Filehne, of Erlangen, was, as a rule, adopted. 75 grains of it being divided into two doses of 30 and one of 15 grains, and the doses given at intervals of one hour. It was seldom found necessary to give more than 150 grains during the twenty-four hours in order to maintain the temperature at an average of from two to three degrees lower than would have been expected if no antipyretic agent had been employed. In all cases antipyrin had the effect of reducing the temperature; but in one instance it was found necessary to administer it hypodermically in order to obtain the desired results. One of the most noticeable effects of the drug was the rapid cleaning up of the tongue under its use; and it also acted very happily in quieting nervous symptoms, depression of spirits being noted after it in only one case. In six cases it caused profuse diaphoresis and in six an erythematous rash resembling measles, but the latter occasioned the patients no annoyance. The most marked fall in temperature noted under its use was from 103°.8 to 98°.

In three cases the antipyretic effect of cold baths and antipyrin was directly contrasted. In the first case, it was impossible to reduce the temperature below 104°.3 by means of surface refrigeration; but antipyrin promptly brought it down to 102.2. In the second, the lowest point reached under the use of baths was 102°.4, while under antipyrin it fell to 101°.2. In the third, however, the difference was not so striking. On the whole, Dr. Draper said, his observations had been altogether confirmatory of those made by European physicians in regard to the apparent value of antipyrin. At present it could only be commended as a new and probably safe agent for the reduction of temperature. It did not cure febrile diseases, but it enabled us to control a symptom which caused the greatest amount of discomfort and not infrequently endangered the life of the patient. Antipyrin was not an antipyretic in the same sense that quinine and the salicylates were. These agents were ideal antipyretics in the class of cases where they were specially indicated; while antipyrin smothered, but did not extinguish, the fires of fever. In some cases the latter actually caused a temperature as low as that met with in collapse, though with a total lack of the depression and other grave symptoms characteristic of this condition. As to the *modus operandi* of the remedy, the vomiting, sweating and collapse-temperature produced by it seemed to indicate that its special effect was upon the nervous centres; but at present, Dr. Draper thought, any such hypothesis as to its action was simply conjecture.

Dr. Weber, one of the leading German practitioners of the city, said that he had commenced to try antipyrin about the middle of December last, and that he had employed it thus far in fifteen cases. None of these were of typhoid fever; but there were cases of pneumonia, bronchitis and scarlet fever, with high temperature, and in not a single instance had he been disappointed by its failure to reduce the latter. He then referred to three of the cases as illustration of his experience with the remedy. The first was that of a child, four years and six months of age, suffering from double pneumonia, with a temperature of 105°.5 and violent delirium. He ordered half a gramme of antipyrin to be given *per rectum*, and that it should be repeated in half an hour In a short time the temperature was reduced several degrees and the delirium entirely disappeared The next day he gave two doses, of half the quantity, by the mouth, and, resolution then occurring, there was no necessity for continuing its administration The next case was one of scarlet fever in a child two years and six months old Before the antipyrin was taken the temperature was 105°, and in this instance he followed a plan of giving it which, as he had recently seen, had now been adopted at the Dresden City Hospital This was to use it in smaller doses, and to repeat them every two or three hours through the day, according to the necessities of the case The last case was that of a lady, 43 years of age with pneumonia and pleurisy The patient did perfectly well for the first two days, but on the third he found her with a temperature of 104°, a dusky countenance and a generally adynamic condition He ordered three doses of antipyrin, of 20 grains each, to be given at 1, 2 and 3 o'clock respectively, and the temperature was soon reduced to 100 °5, after which it never rose above 101° 5 Dr Weber thought it was well, as a rule, to begin with small doses, and afterward increase the quantity, if it were necessary In this way it would be possible to avoid the too rapid, and perhaps dangerous, fall of temperature which was sometimes caused by it At the Dresden City Hospital there had been six cases in which it was actually reduced to 92° or 93° by it

Dr Kinnicutt said that he had used antipyrin to a considerable extent both at St Luke's Hospital and in his private practice, and that the effects which he had observed were almost exactly similar to those noted by Dr Draper Among the cases in which he had employed it were facial erysipelas, scarlet fever, pneumonia, pleurisy, phthisis and intermittent fever In his experience gastric disturbance was exceptional, and he said he had been particularly pleased with the certainty of the action of antipyrin in controlling the usual afternoon rise of temperature in phthisis In this affection it had been maintained that it was contraindicated on account of its liability to produce diaphoresis, but in his cases he had found that sweating was as frequently absent as present In one case only had he noticed a chill occurring with the rise in temperature after the effect of the drug had passed off, as was frequently seen when kairin was used There was one of his cases of pneumonia in which a temperature of collapse (but without any other serious symptom) was produced by twenty grains of antipyrin The patient expressed herself as feeling greatly relieved, and her general condition remained entirely satisfactory

Dr Peabody, who was perhaps the first physician in New York to make trial of antipyrin, stated that he thought that the lack of effect from the drug which had been sometimes noted of late might probably be explained by a fact which he had recently seen mentioned in the German journals, viz that it was now largely adulterated In his own earlier experiments he had never failed to produce rapid reduction of temperature in any case in which he employed antipyrin, but during the last six weeks he had more than once been disappointed in finding the remedy apparently inert Thus, in the case of a negro now under treatment at the New York Hospital, who had a temperature ranging from 103 to 106, for the past two days he had administered seventy-five grains of antipyrin a day, in three doses, but without affecting the temperature the fraction of a degree

Antipyrin, he thought, was a safe remedy, and he had never seen it at all reduce the force of the heart's action It might be of interest to many practitioners to know that it could be given hypodermically with great facility, the drug being readily soluble in hot water and not crystallizing again, while it was not at all likely to produce unpleasant local effects Hence, in any case in which vomiting, or other disturbance, was produced by giving it by the stomach, the hypodermic method could be substituted for this with advantage He had personally tested antipyn in almost all of the ordinary febrile diseases, and in one case of typhoid fever where no effect whatever was produced by a thorough trial of cold bathing, the temperature was promptly reduced by it The patient in this instance was a very fleshy young woman, upon whose body there was such a thick layer of adipose tissue that it seemed to prevent cooling of the external surface from affecting in the slightest degree the temperature of the interior of the system Before antipyrin was resorted to she had a temperature of 105°, with a marked degree of mental hibetude, but under the use of this drug the temperature was quickly brought down, and the sensorium at once cleared up

Dr Draper made a few remarks at the close of the discussion In some instances, he said, he had himself adopted a plan of administration similar to that suggested by Dr Weber, and in one case he found that the use of 20 grains of antipyrin twice a day added very greatly to the welfare and comfort of the patient All that we could say in regard to this remedy at present was, that it afforded a very efficient means of treating a symptom But this was a symptom which was often one of the greatest importance, particularly in typhoid fever, where the long continuance of an extreme degree of time practice was in itself an element of no little danger By keeping this under control, therefore, the patient's lip might sometimes be saved P B P

THE CLEANLINESS THAT MAY BE AKIN TO GODLINESS WHEN APPLIED TO SURGICAL INSTRUMENTS

In the olden time of the blue laws, and anterior to the era of divorces, the excellent Connecticut divines were in the habit of advising the young men of their flocks to "get a good wife, keep her, and keep her good" The same advice given in regard to surgical instruments, might well be imparted to our young medical men who are purchasing their armamentarium The matter of getting good instruments is very easy in our day, when the instrument makers are men of science and ability, and their number is close upon legion, but the matter of keeping a good instrument in good order is not always so easy Our grandfathers took the same care of their instruments as they did of their wives, for both were plain and apt to be good-tempered, and the old doctor's saddle bags contained about as many instruments as his wife had accomplishments Grandma'am could sew, knit, spin, and keep house, and in the bags were the syringe, lancets, dental forceps, and splints Nowadays, when feminine accomplishments are many and wonderful, it is not always an easy task to keep them in order, and so of the thousand and one instruments What is worth buying is worth keeping, and even if there is money enough in a physician's pocket to replace an instrument, when it gets rusty or tarnished, with a new one, nevertheless there are no medical men who can afford to let an instrument be ruined by aught else than actual wear But extravagance rules in our day, and while we occasionally see an old practitioner's steel as bright as a mirror, not a few of our younger men show cabinets of tarnished instruments, and are in frequent communication with the manufacturers Now, these things should not be As was said about wives—let good instruments be purchased, let no flirtations with other makes occur, let the armamentarium be kept, and, moreover, let it be kept well

Of course, the paramount question is as to how this last point is to be secured, and assuredly nothing in the same connection can be more important It is not strange to hear it said that perfect preservation is impossible, and that the steel and nickel, silver and gold are of poor quality This last may sometimes be true, but it must be admitted that there is really very little poor material used The fault is not the maker's If one buys a good instrument, that is good when bought, good it is, and good it will be, if it is properly taken care of

My method may not be so good as that of some others, but permit me to say that it has proved perfect in my hands, and with such a commendation is worth describing for its simplicity if for no other reason When I graduated and began practice I found that I was not to have time to use the chamois skin very often, and active practice has proved this true Something else had to be done, and by some happy chance I hit upon it and have followed it ever since I simply use a well known laundry article called "pearline" and sweet oil Whenever an instrument is used it is washed as soon as possible in tepid water, to which the pearline is added, a tablespoonful to a pint The washing removes all foreign matter, and the instrument is at once dried with a soft towel and then dipped in the oil The process is not complicated at all, and the result is that instruments that came out of the shop in 1875 are in as good trim as ever—bright, clean, and without a blemish Let me recommend this treatment to all who want to keep their instruments looking well and in a serviceable condition Pearline is kept by all grocers, and the oil is always in every well regulated physician's closet, and between the two articles and a good towel there is no reason why we cannot be proud of the looks of our instruments every time we have to use them

W H M

WESTFIELD, N J

A PECULIAR SYMPTOM IN TRICHINOSIS.

EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Dear Sir —I desire to call the attention of the profession to a symptom or condition which I have noticed very prominently in two cases of trichinosis, and which was present in two other cases, though not so prominent as in the first two, or so evident that I would have observed it had I not looked for it

This condition was a yellowish color in one case, and a brownish yellow color in the other three, extending over the hands and wrists and up the fore arms over both flexor and extensor surfaces The skin elsewhere was clear, and the conjunctiva showed no signs of jaundice My attention was first called to it by one of the patients on whom it was present, afterward, upon examination, it was found on all four, occurring, as near as could be ascertained, about the seventh day of the disease

So far as I am aware this coloration of the skin has not been mentioned in the clinical history of any disease, and if, upon further inquiry, it should be found present in a large percentage of cases of trichinosis, it seems that it should be looked upon as a diagnostic symptom Of the above cases two died, and pieces of muscle from each showed the trichina spiralis in large numbers This peculiar color was much more marked in the two fatal cases than on the other two The family in which these cases occurred consisted of ten members, all of whom ate of the pork cooked, after which, at the same meal, six ate some of the raw pork Of the six, all were affected with trichinosis, two, one of whom died, were taken sick at the end of a week, while the other four were seized a week later, and one of this number died Of the four, two received gr xx of calomel early in the course of the disease, it acted promptly as a cathartic and emetic, and they made a rapid recovery No color was seen on the hands of these two, as in the case of those who were sick for a week and longer All the symptoms given by writers as occurring in trichinosis were present in these cases to such an extent as to render a diagnosis comparatively easy, but my diagnosis was doubted until the microscopist confirmed it by discovering the trichinæ

E S RICHARDSON, M D

REED CITY, MICH, March 26, 1884

PLACEBOES.

EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Please do me the kindness to insert in your journal the following, which is a copy of a letter just mailed by me to the gentleman mentioned in it, and oblige

Yours, etc ,
D W CATHELL, M D ,
Author of "The Physician Himself"

BALTIMORE, April 2, 1885

J B Murdoch, M D , Pittsburgh, Pa

DEAR DOCTOR —My attention has been called to your criticism of my little book in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION of March 28

Upon reading it, I see at once that you proceed under a misapprehension The book, you will remember, is not a work on the treatment of disease, but upon human nature as the physician encounters it

Its paramount subject is, how to deal with people for their good as well as ours, and proceeds on the patent fact that we are to treat the whole individual, and occasionally even his whole family, and not alone his gross physical ailments

Like every intelligent physician, you of course treat the state of mind of your patient by moral means, as well as the state of the body by drugs, and if you or I do not pay some respect to his vagaries, if he happens to possess them, he is very apt to go to some one who will It is true that in doing so you *subserve your commercial interests, but primarily you* relieve your patient, who comes to you for relief

It is true that many persons can be relieved by the simple assurance that their ailment is only imaginary, but it is equally true that with a few others we must adopt a different method For instance I was recently called upon to treat Willie Brown, a stout twelve-year-old boy, one of whose companions had died of traumatic tetanus This patient had become so overshadowed with a dread of that disease, that he was abstracted from everything that formerly occupied him, had become wholly unable to study his lessons, had quit school and spent most of his time in thinking and talking about that affection, and was in constant fear that he might get a scratch or wound and—lockjaw

His family and friends had exhausted their arguments and assurances before I saw him, and I soon found that mine were equally unavailing, the patient continuing to weep and grow worse Finally his father, an intelligent gentleman, suggested that I give him something or another that he would regard as a preventive of the disease

I presented to him thirty or forty of the very globules referred to in the criticism (mint water or anything else would have answered equally well), with instructions to swallow one at exactly 8 o'clock morning and evening His mind was at once relieved, and before all were taken his thoughts had turned to other subjects

Now, I confess that I know of no other way to reach such a case than by something to assure and satisfy, and whatever is used I would call a placebo

I trust that on re-reading the paragraph, and others bearing on it, and a comparison with your own experience, you will see as I do, if not, I shall be pleased to be informed more fully on the subject It is but an application of the principle enunciated by St Paul, "Be ye all things to all men," etc

My aim in writing the work was simply to afford legitimate aid to such of my professional brethren as might feel deficient in the matters on which it treats, and not in any way to lend aid to charlatanism, to which I intended every paragraph in the work to breathe uncompromising opposition

Yours with sincerity and respect,
D W Cathell, M D ,
Author of "The Physician Himself"

2 N Broadway, Baltimore, Md

BOOK REVIEWS

Insomnia, and other Disorders of Sleep By Henry M Lyman, A M , M D , Professor of Physiology and Diseases of the Nervous System in Rush Medical College , Professor of the Theory and Practice of Medicine in the Woman's Medical College, and Physician to the Presbyterian Hospital, Chicago, Ill Small 8vo, pp x, 239 Chicago *W T* Keener, 1885

This little book consists of seven chapters, the subjects of which are as follows The Nature and Causes of Sleep , Insomnia, or Wakefulness , Remedies for Insomnia , Treatment of Insomnia in particular Diseases , *Dreams* , *Somnambulism* , *Artificial* Somnambulism or Hypnotism Passing over the first and second chapters, which are highly interesting, we come to the third, on the remedies for insomnia In a quite formidable list of nervous stimulants which may be employed for inducing sleep, we find baths and food , these, in our opinion, are the chief remedies upon which to rely for a successful treatment of insomnia The author seems to prefer a warm bath The great objection to the warm bath on going to bed is the extreme liability to take cold after its use, which does not obtain in the case of the cold bath Besides this, the cold bath need not be complete , cold water may be applied to the face and back of the neck, or it may be used on these parts and the upper part of the body The idea that washing the face in cold water will produce wakefulness is an old woman's story, as any sleepy-headed schoolboy will testify , it will produce a seeming wakefulness for a few minutes, but the tendency to sleep is thereafter stronger than before

As regards the use of food, the author says "In a considerable number of cases of insomnia, its cause lies in an irritable weakness of the nervous tissues Exhausted by overwork or debilitated by the loss of blood, or half-starved during the course of a long illness like typhoid fever, a condition of wakefulness may be established which will add to the dangers experienced by the patient The most important remedy for such distress is found in food This must be soluble, diffusible, stimulant and nutritive Milk, alcohol, eggs, and meat juice, are the typical representatives of such food " The writer of this review has had considerable experience in the treatment of insomnia from long hours of night work, not what may properly be termed "overworked," but due to such long hours of mental activity as may be seen in the cases of good students and, notably, night workers on daily newspapers For the first class, the light diet at bedtime seems to be best , for it will be found that the majority of students who are troubled with insomnia are dyspeptic In many cases, however, it will be found that the dyspepsia arises from insufficient quantity of food, and a gradual increase in the quantity, with a corresponding increase in the solids and a decrease in the liquid elements, will often cause both the dyspepsia and the insomnia to disappear

In the case of, say, nightmen on a daily newspaper, who take the evening meal at six o'clock, and then work from eight until two A. M., the writer has seen many cases of insomnia among these men, but as a rule there are but few cases of dyspepsia, unless the insomnia has existed for a considerable time; which is circumstantial evidence that the dyspepsia is more an effect than a cause. Within the past ten months the writer has been consulted by seventeen newspaper men for the treatment of more or less inability to *sleep. In every case, without exception,* it was found that the evening hours of work were from half-past *seven or eight until from* half-past one to half-past three o'clock, after which the sufferer would retire as soon as he reached his room, without eating. In every case the treatment was: eat before going to bed; eat what you wish, and as much as you want; take a glass of milk, beer, ale, or whatever you desire. Then bathe the face, neck and chest, or the whole body if it be desirable, in cold water preferably; take five minutes' exercise, and go to bed. Each one of these patients reported that the treatment was a success from the first. Some of them supped lightly, others ate very heartily. The menu for one of the latter class consisted of half-a dozen fried oysters, a piece of cold beef, two eggs on toast, two glasses of mild or a bottle of ale, or in place of the *cold beef and eggs,* a large welsh rarebit; when very hungry he ate two rarebits. This may seem like carrying the thing too far; but it should be remembered these men arise late in the day, and very often eat only two meals; it should be further remembered that a man who is hungry should eat. While, therefore, Prof. Lyman's remarks as to the value of soluble foods, meat-juice and the like are *very true in cases* of sickness, or for invalids, those who are able to extract the juices of food for themselves without having it half digested for them by artificial processes should be encouraged to do so.

Dr. Lyman has written a very interesting and practical little book, and one which contains a great deal of information on a subject to which very little attention is given. And after having enjoyed the reading of it, we can but wish it all success. It is gotten up in a neat and attractive style, and is completed by a copious index.

Insanity and Allied Neuroses: Practical and Clinical. By George H. Savage, M.D., M.R.C.P., Physician and Superintendent of Bethlehem Royal Hospital; Lecturer on Mental Disease at Guy's Hospital, etc., with 19 illustrations. Small 8vo, pp. vi, 544. Philadelphia: Henry C. Lea's Son & Co. 1884. Chicago: Jansen, McClurg & Co.

This book is one of a series of Clinical Manuals issued by the publishers during the past year. Dr. Savage very modestly apologizes for the appearance of the work (though those who know his reputation will feel that no apology is needed) by stating that those who have been engaged for years in the culture of any branch of science, and in the imparting of its data to others, finally arrive at a time when the facts observed seem to demand some permanent registration. Had the profession been called upon to decide, it would have said that his time for registration had arrived some years ago; for, as is quite well known, he has had more than twelve years' experience in Bethlehem Hospital.

The greater part of this book, he tells us, is the result of his personal experience, but as idiocy, epilepsy, and chronic mental disorders are not treated in the hospital with which he is connected, he has drawn upon the experience of others in treating of them.

The book is written in a clear, concise style; the author does not wander from his subject; his use of his mother tongue is unexceptional; the presswork is excellent; and further comment from us is unnecessary, for Dr. Savage is too well known as a good worker in his special field to need commendation, or to be affected by criticism.

ASSOCIATION ITEMS.

Wooster, O., April 7, 1885.

Editor Journal American Medical Association:

Please announce, for the benefit of delegates to the American Medical Association and their friends, that the Cleveland Mt. V. & P. H. route will run a through train to New Orleans over the Louisville & Nashville railway for accommodation of physicians and their friends, leaving Cleveland on Thursday, April 23, at 8 P. M., arriving in New Orleans on Saturday the 25th, at 7.30 P. M. The fare for round trip from Cleveland, for forty days limit, $30; Orrville, for forty days limit, $29.70. A rebate of $5 will be paid on these rates by selling agent if returning in twenty days. Any desiring to take advantage of this opportunity will please address

Dr. H. A. Hart, Wooster, O.

MISCELLANEOUS.

INTERNATIONAL MEDICAL CONGRESS.

Ninth Session, to be held in Washington, D. C., in 1887.—The following rules and provisional lists of officers of the Ninth International Medical Congress, to be held in Washington in 1887, are published by order of the executive committee.

John S. Billings,
Secretary-General.
Washington, D. C.,
March 24, 1885.

Rules.—1. The congress will be composed of members of the regular medical profession, and of such persons as may be specially designated by the executive committee, who shall have inscribed their names on the register of the congress, and shall have taken out their tickets of admission. As regards foreign members, the above conditions are the only ones which it seems, at present, expedient to impose.

The American members of the congress shall be appointed by the American Medical Association, by regularly organized state and local medical societies, and also by such general organizations relating to special departments and purposes, as the American Academy of Medicine, the American Surgical Association, the American Gynæcological, Ophthalmological, Otological, Laryngological, Neurological, and Dermatological Societies, and the American Public Health Association, each of the foregoing societies being entitled to appoint one delegate for every ten of their members

The members of all special and subordinate committees, appointed by the general committee, shall also be entitled to membership in the congress

All societies entitled to representation are requested to elect their delegates at their last regular meeting preceding the meeting of the congress, and to furnish the secretary-general with a certified list of the delegates so appointed

2 The work of the congress is divided into nineteen sections, as follows, viz 1 Medical Education, Legislation, and Registration, including methods of teaching, and buildings, apparatus, etc, connected therewith 2 Anatomy 3 Physiology 4 Pathology 5 Medicine 6 Surgery 7 Obstetrics 8 Gynæcology 9 Ophthalmology 10 Otology 11 Dermatology and Syphilis 12 Nervous diseases and Psychiatry 13 Laryngology 14 Public and International Hygiene 15 Collective Investigation, Nomenclature, and Vital Statistics 16 Military and Naval Surgery and Medicine 17 Practical and Experimental Therapeutics 18 Diseases of Children 19 Dental and Oral Surgery

3 The general meetings will be reserved for the transaction of the general business of the congress, and for addresses or communications of scientific interest more general than those given in the sections

4 Questions which have been agreed upon for discussion in the sections shall be introduced by members previously nominated by the officers of the section The members who open discussions shall present in advance a statement of the conclusions which they have formed as a basis for debate

5 Notices of papers to be read in any of the sections, together with abstracts of the same, must be sent to the secretary of that section before April 30, 1887 These abstracts will be regarded as confidential communications, and will not be published until the meeting of the congress Papers relating to questions not included in the list of subjects suggested by the officers of the various sections will be received Any member, after April 30, wishing to bring forward a subject not upon the programme, must give notice of his intention to the secretary-general at least twenty-one days before the opening of the congress The officers of each section shall decide as to the acceptance of any communication offered to their section, and shall fix the time of its presentation No communication will be received which has been already published or read before a society

6 All addresses and papers, read either at general meetings or in the sections, are to be immediately handed to the secretaries The executive committee, after the conclusion of the congress, shall proceed with the publication of the transactions, and shall have full power to decide which papers shall be published, and whether in whole or in part

7 The official languages are English, French and German

In the sections no speaker will be allowed more than ten minutes, with the exception of readers of papers and those who introduce debates, who may occupy twenty minutes

8 The rules, programmes and abstracts of papers will be published in English, French and German

Each paper or address will appear in the transactions in the language in which it was delivered by the author The debates will be printed in English

9 The officers of the general committee on organization are a president, such number of vice-presidents as may hereafter be determined on, a secretary general, and a treasurer, and those elected to these positions will be nominated by the general committee to hold the same offices in the congress All vacancies in these offices shall be filled by election Honorary presidents of the congress and of the several sections may be appointed at the meeting of the congress

10 There shall be an executive committee, to be composed of the president, secretary-general, and treasurer of the general committee, the chairman of the finance committee, and of four other members to be elected by the general committee The duties of the executive committee shall be to carry out the directions of the general committee, to authorize such expenditures as may be necessary, and to act for the general committee during the intervals of its sessions, reporting such action at the next meeting of the general committee

11 There shall be a standing committee on finance, composed of such number of persons as the executive committee may deem expedient, to be appointed by the president, subject to the approval of the executive committee The chairman of the finance committee shall be *ex officio* one of the vice-presidents of the congress, and also a member of the general and executive committees The treasurer shall be *ex officio* a member of the finance committee

12 Presidents of the sections shall be *ex officio* members of the general committee

13 The committee on organization of each section shall be composed of a president, such number of vice presidents as may be deemed expedient, of one or more secretaries, and of members forming a council

PRELIMINARY ORGANIZATION

President —Austin Flint, Sr, M D, New York

Vice Presidents —Henry I Bowditch, M D, Boston, Henry F Campbell, M D, Augusta, Ga, Nathan S Davis, M D, LL D, Chicago, R Palmer Howard, M D, Montreal, Levi C Lane, M D, San Francisco, Tobias G Richardson, M D, New Orleans, Alfred Stille, M D, LL D, Philadelphia, the Chairman of the Committee on Finance, the President of the American Medical Association, the Surgeon-General of the United States Army, the Surgeon General of the United States Navy

Secretary-General —John S Billings, M D, LL D, U S A, Washington

Treasurer —John Mills Browne, M D, U S N, Washington

General Committee —Robert Battey, M D, Rome, Ga , Clarence J Blake, M D , Boston , Henry P Bowditch, M D , Boston , Samuel C Busey, M D , Washington , James R Chadwick, M D , Boston , J M Da Costa, M D , Philadelphia , John C Dalton, M D , New York , W W Dawson, M D , Cincinnati , Francis Delafield, M D , New York , George J Engelmann, M D , St Louis , William A Hardaway, M D , St Louis , I Minis Hays, M D , Philadelphia , David L Huntington, M D , U S Army, Washington , Abraham Jacobi, M D , New York , Hosmer A Johnson, M D , LL D , Chicago , Christopher Johnston, M D , Baltimore , R A Kinloch, M D , Charleston, S C , George M Lefferts, M D , New York , Joseph Leidy, M D , LL D , Philadelphia , S Weir Mitchell, M D , Philadelphia , Henry D Noyes, M D , New York , Thaddeus A Reamy, M D , Cincinnati , Thomas F Rochester, M D , Buffalo , Lewis A Sayre, M D , New York , Jonathan Taft, M D , Cincinnati , W Chew Van Bibber, M D , Baltimore , Horatio C Wood, M D , Philadelphia , David W Yandell, M D , Louisville, Ky

Executive Committee —I Minis Hays, M D , Chairman, Philadelphia , the President, the Secretary General, the Treasurer, the Chairman of the Finance Committee , Samuel C Busey, M D , Washington , Abraham Jacobi, M D , New York , Christopher Johnston, M D , Baltimore

Standing Committee on Finance —William Pepper, M D , LL D , of Philadelphia, chairman [The organization of this committee will be announced hereafter]

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A SUIT FOR MALPRACTICE —The details of a curious case comes to us through the columns of the *Southern Dental Journal* as occurring at Salisbury, N C , and reported by J F Griffith, D D S

It seems that an old country physician engaged the services of an itinerant dentist who extracted sixteen teeth from the mouth of his daughter-in-law The operation was followed by unusual hæmorrhage, and the dentist recommended the use of alum, and had heard that wheat bran packed in the socket was very efficacious The latter was the treatment persued, it produced excessive inflammation The father-in-law, *i e* , the old-country physician, being called, who, although not a regular physician, was a cold-water doctor, wrapped the patient from head to foot with sheets and blankets wet with cold water, placed a basin of steaming hot water under her, and administered a purgative The patient growing worse, another doctor was called, who pronounced the case one of blood poisoning and produced by the use of the bran The woman died and her husband sued his father for malpractice One point insisted upon was, that the old man has been practicing physic thirty years, and although not a graduate, nor had he ever attended a medical college, yet he was recognized as a physician, and was so called when addressed, or spoken of by people residing in his community, furthermore that he invariably took his saddle-bags along, containing medicine, whenever he visited his daughter-in-law during her illness The counsel for the defendant set up the plea that the defendant had made no charges for his services, being interested only from a family standpoint, that he merely suggested and assisted in administering to his daughter-in-law such remedies as in his judgment would meet the requirements of the case

The judge in his charge to the jury stated that the law presumed that whoever entered upon the practice of any profession, the same was qualified to pursue it intelligently in its various channels, and if from the testimony they were satisfied that the father attended his daughter-in-law during her sickness in the capacity of a physician, and that his negligent or unskillful treatment caused the death of the patient, then they should bring in a verdict of guilty The jury were out but a short time, returning a verdict of guilty, and placing the damages at twenty five thousand dollars An appeal was taken

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A NEW BILL FOR THE PROTECTION OF PUBLIC HEALTH —Dr Cartwright, of Delaware county, N Y , has prepared a bill, which has passed the New York Assembly, for the purpose of adding safeguards against the introduction of cholera The main features of the bill are indicated in sections 1 and 6, which are as follows It will be seen that these provide that all vessels bring a bill of health from all the ports at which they have stopped

Section 1 It shall be the duty of the health officer at the several ports of entry within the State of New York, to require the masters of all merchant ships and vessels arriving at said ports from any foreign port to present a bill of health, duly executed by the consul, vice-consul, or other consular officer of the United States, or by the medical officer attached to the United States Consulate by appointment of the United States Government, or the representative of the United States Government resident at said port of departure, which shall set forth the sanitary condition and history of said vessel, also the sanitary condition of the cargo and of the crew and passengers, also the sanitary condition of the food, water and ventilation of said vessel, the number of cases at such port of yellow fever, cholera, small-pox, typhus fever, relapsing fever, scarlatina, measles and diphtheria, the total number of deaths from each of these diseases, from all causes, the week preceding the date of said bill of health, as far as can be ascertained by the said consul, vice consul, or other consular officer of the United States, or the medical officer attached to such consulate

Section 6 The diseases against which maritime sanitary regulations at the port of New York shall apply are yellow fever, measles, cholera, typhus or ship fever, small-pox, scarlatina, diphtheria, relapsing fever, and any disease of a contagious, infectious or pestilential character which shall be considered by the health officer dangerous to the public health And all such quarantinable diseases, except yellow fever, cholera, typhus fever and small pox, shall be removed to the Emigration Hospital, Castle Garden, or Ward's Island

Sections 4 and 5 provide for examination as to vaccination, and vaccination if necessary —*The Medical Record*, April 4, 1885

English Surgeons in the Soudan —A medical correspondent, says the Maryland *Medical Journal*, writes as follows from the English headquarters in the Soudan The hospitals are well supplied, the sick are well cared for, and the most captious critic can find no fault Whether at professional duty or hauling a boat, or in desert marching, in mending a hospital bed, or in building a hospital-kitchen, from morning to night, all day and every day, we are all hard at work

The Medical Society of North Carolina will hold its next annual meeting in Durham on May 19, 20 and 21 The Board of Medical Examiners will convene at the same place on Monday, May 18, and remain in session until all the candidates are examined The State Board of Health will hold a general and conjoint session on Wednesday, May 20, at the same place

The State Board of Health of Maine —The new State Board of Health, as appointed by Governor Robie, includes the following names Frederick Gerrish, of Portland, Lewis Barker, of Bangor, Stephen J Young, of Brunswick, O A Horr, of Lewiston, E C Jordan, of Portland, and J O Webster, of Augusta

Quinine Adulterations in New York —The Board of Health of the city of New York has recently arrested one druggist and reprimanded two, for selling adulterated quinine pills

Antivivisectionists in England —The London correspondent of the New York *Medical Record* of April 4, says The antivivisectionists sustained another defeat at Oxford on Tuesday last (March 10) The occasion was the bringing before the convention of a decree to grant £500 annually for the maintenance of the new physiological laboratories, which cost £10,000 The clerical party strained every nerve, but were outvoted

Pleuro Pneumonia in Missouri — A dispatch from St Louis, Mo, of April 5, states that Governor Marmaduke and Congressman Bland have telegraphed the Hon Norman J Colman, commissioner of agriculture at Washington, calling his attention to the existence of pleuro pneumonia in Callaway county, that state, and asking him for the prompt and vigorous use of all the power he possesses under acts of congress for the suppression of the disease

American Association of Medical Editors

We are informed by the secretary, Dr H O Walker of Detroit, that the annual meeting of this association will be held on Monday evening, April 27, commencing at eight o'clock, in the city of New Orleans Notice of the room will be given in due time An address will be delivered by the president, H O Marcy, of Boston, and the subjects of medical legislation and education will be discussed by Drs Daniel, of Texas, Shoemaker, of Pennsylvania, Conner, of Detroit, and others A general attendance is requested

Infectious Diseases in New York —For the three months ending March 31, 1885, the summary of cases and deaths is as follows Typhus fever, 31 cases, 1 death, typhoid fever, 111 cases, 40 deaths, scarlatina, 1,093 cases, 203 deaths, cerebro spinal meningitis, 72 cases, 65 deaths, measles, 1 890 cases, 349 deaths, dyphtheria, 779 cases, 345 deaths

The Inhalation of Defibrinated Blood —In view of the bad results which follow the ordinary methods of transfusion of blood, and of the great tolerance of the respiratory organs to foreign fluids, and the rapid absorption of the latter, Professor Fabrini, of Palermo, calls attention, in the *Centralblatt fur die medicinische Wissenschaften*, No 9, 1885, to what may be termed pulmonary transfusion The fluid employed consists of twenty parts of bullock's blood, and eighty parts of a three-fourths per cent watery solution of chloride of sodium, in which the red corpuscles preserve their normal properties for a long time Inhalations of about three ounces and a half of the mixture, through the medium of an ordinary spray apparatus, do not excite coughing, nor do they bring about any perceptible alterations in the circulation respiration, or the temperature, and auscultation shows that the mixture is rapidly absorbed

Fabrini has resorted to this novel method of transfusion in cases of oligæmia with the best results, as indicated not only by the improvement in the general condition of the patient, but also by the increase in the relative number of the red corpuscles, and in the quantity of hæmoglobin These results are stated in a general way, and not supported by details of cases Hence, more extended trials will have to determine the value of the method —*Medical News*, April 4, 1885

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM MARCH 28, 1885 TO APRIL 3, 1885

Taylor, M K, Major and Surgeon, granted leave of absence for one month, to take effect about April 15 (S O 46, Department of Missouri, March 21, 1885)

Hall, Wm R, Captain and Assistant Surgeon, granted leave of absence for one month and fifteen days, to take effect when his services can be spared (S O 70, A G O, March 27, 1885)

Gardiner, Jno de B W, Captain and Assistant Surgeon, ordered for temporary duty at Ft McHenry, Md (S O 64, Department of the East, March 28, 1885)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE FOR THE WEEK ENDED APRIL 4, 1885

Murray, R D, Surgeon Granted leave of absence for one week March 31, 1885

Bratton, W D, Assistant Surgeon To proceed to New York, N Y, for temporary duty, April 2, 1885

Watkins, R B, Assistant Surgeon To proceed to New Orleans, La, for temporary duty, April 2, 1885

APPOINTMENTS

The following candidates having passed the examination required by the regulations, were appointed Assistant Sugeons by the Secretary of the Treasury April 1, 1885, viz

William D Bratton, M D, of South Carolina, and Ralph B Watkins, M D, of Connecticut

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

Vol IV | Chicago, April 18, 1885 | No 16

ORIGINAL ARTICLES.

FACTS SERVING TO PROVE THE CONTAGIOUSNESS OF TUBERCULOSIS, WITH RESULTS OF EXPERIMENTS WITH GERM TRAPS USED IN DETECTING TUBERCLE-BACILLI IN THE AIR OF PLACES OF PUBLIC RESORT[1]

BY WILLIAM H WEBB, M D,

OF PHILADELPHIA PA

It is in accord with the spirit of the age to attempt to get at the root of all things affecting the health of our race The causes of tuberculosis and the influences modifying the progress of the malady claim not only the active interest of those engaged in the field of scientific medical investigation, but the attention of every mind that fully appreciates the universal prevalence and immense mortality resulting from the scourge consumption It may add somewhat to the interest, if not to the elucidation, of this subject to trace the progress of thought springing from the observation of clinicians of all ages By collecting the expressions of the *master-workmen* of different times, we will see that knowledge upon the subject has been steadily progressive, and that what now seem to be proven facts have been preceded by flashes of truth in almost every epoch of medical history The discovery of the tubercle-bacillus was not drawn from the inspiration of genius, but from the shaping of clinical facts gathered in the progress of our art, from the time of the father of medicine until the day that Koch discovered a peculiar microbe in tuberculous patients

The word tubercle was used by Hippocrates,[2] but he applied it principally to designate small external tumors—phymatæ—as, hordeolum, furunculus, sycosis, anthrax, wheals, etc It is said that the word was used by Celsus, about A D 20, but no special meaning was attached to it by him

Franciscus Deleboe Sylvius, who lived between 1614 and 1672, was not only a strong advocate of the doctrines of Hippocrates, but also did much to advance the knowledge of this disease He was the first to use the word tubercle in designating the hard nodules found in the lungs of the phthisical He was also the first to speak of the formation of cavities and destruction of the lung tissue by the softening and breaking down of these hard masses He describes three kinds of consumption—one of the blood, one of the lungs, occasioned by bad nutrition, and one of degenerated glands Through this latter proposition he may be regarded as the originator of the theory of a relationship between consumption and scrofulosis "He believed that in the predisposed the disease may be excited by contagion "[1]

As a result of autopsies made by Willis, and also by Bonetus, about from 1640 to 1670, the subject of phthisis was very much advanced

When Richard Morton's[2] celebrated work appeared, the opinions set forth therein were not only greatly in advance of those of his own time, but were destined to supplant all others, and to be accepted as correct for more than one hundred years after his death He asserted that all consumption originated through tubercles, and that they gave rise to the dry cough The idea entertained by Hippocrates, that consumption was due to inflammation and ulceration, he strongly opposed He also declared that he believed the disease to be propagated by infection "For," said he, "this distemper—as I have observed by frequent experience—like a contagious fever, does infect those that lie with the sick person with a certain taint" (p 67)

Desault[3] also insisted that tubercles were the essence of consumption, and that ulceration of the lungs and hæmoptysis were the result of the deposit He believed in the contagiousness of the disease when ulceration had occurred A statement, which at this day seems to have been almost prophetic, occurs in his writing upon tuberculosis "Worms," he declares, occasioned by the putrefying lungs, "propagate the disease and cause it to spread"

From the time of Morton to 1793, the subject of tuberculosis commanded the attention of some of the most distinguished men in medicine (Sydenham, F Hoffman, Boerhaave, Van Swieten, Sauvages, Morgagni, Cullin, Hufeland, Portal,

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[1] Read before the College of Physicians of Philadelphia, February 4, 1885

[2] "The Genuine Works of Hippocrates" Published by the Sydenham Society London 1849

[1] Quoted in 'A Practical and Historical Treatise of Consumptive Diseases" By Thos Young, M D 1815 p 178

[2] "Phthisiologia or a Treatise of Consumption" 2d Ed London, 1694

[3] Quoted by Thomas Young, M D Loc cit

Stark, Ruysch, Stahl, Reid, and Baumé) At this time Baillie's great work appeared,[1] in which he demonstrated the existence of tubercles in other organs besides the lungs

Bayle,[2] an independent worker as well as thinker, insisted most strenuously that phthisis is a general chronic disease, and owes its origin to a special principle—the tuberculous He, too, denied most positively the teachings of Hippocrates, that consumption was due to inflammation and ulceration To him is due the credit of discovering what is now known as miliary tuberculosis "Out of 900 autopsies performed by him, he found 624 had tubercular phthisis, 185 the granular or miliary tubercle, 72 melanotic, 14 ulcerous, 4 the calculous, and 3 the cancerous" He says further "This disease appears always to depend on a peculiarity of constitution Hæmoptysis is a frequent symptom of consumption, and is sometimes mistaken for its cause, but it often happens that when hæmoptysis has been fatal, the lungs are found full of tubercles"

Laennec, who followed Bayle, declared that all consumptions, including scrofulosis, were nothing but the consequences of the tuberculous specific principle, which might be inherited or be acquired In demonstrating his theory he made use of auscultation, which it is said he originated, in accurately determining the diseased condition of the lungs Laennec's views in regard to the pathology of consumption, notwithstanding he had very strong opponents among his colleagues, were held for a long time Schonlein, in the main, held with Laennec, but differed most positively with him in making a marked distinction between tuberculosis and scrofulosis At this time scores of eminent investigators were busy with this subject, and the confusion of ideas that then existed occasioned the promulgation of many widely divergent theories, thus were described tuberculization of pus, tuberculous pus, gray tubercle, yellow tubercle, gray infiltration, tubercle granules, tubercle corpuscles, granulosis, albuminous tubercle, etc Indeed, the number of forms assumed by this disease was limited only by the number of writers upon it This tended to give to the simplicity of the theories advanced by Laennec a great attraction to many, who held to them for sheer comfort of mind Out of this dire confusion a way was opened by Virchow, whose cellular pathology gave us a positive science by which the theories of previous writers were exploded

In the early part of 1882, Dr Robert Koch made his name immortal by giving to the world the result of the researches and experiments[3] by which he swept away all false ideas that had existed in regard to tuberculosis for a period of over two thousand years It was then that he made the announcement that "Tuberculosis is a specific, infectious disease, caused by a specific micro organism—the bacillus tuberculosis—which constitutes, in fact, the true tubercle virus" This statement is one of the most remarkable, in its import, in the history of medicine

Koch reached this position by the results obtained from experiments made with the tubercle-bacilli which he had artificially cultivated He prepared a nutritive substance, and introduced into it a speck of pus taken from a tuberculous human lung In this way he obtained a number of bacilli, with which he infected fresh material, and by frequent repetition of this process, which he carried on for many months, he succeeded in obtaining bacilli very many generations removed from those taken from the diseased lung These cultivated bacilli were introduced into the circulation of healthy animals, and in every instance induced tuberculosis Tubercles in large numbers were found in the lungs, liver, and spleen of all the animals thus experimented upon

The labors of the illustrious Pasteur, of France, and of Koch, of Germany, are now well known to us all They are the leaders of a host of equally zealous investigators, who have acquired more or less distinction through their efforts in this direction

Villemin,[1] Buhl,[2] Bollinger,[3] Fraenztel,[4] Balmer,[5] Ruhle of Bonn,[6] Lichtheim,[7] the late Prof Cohnheim,[8] Gaffky,[9] Ewald,[10] Ehrlich,[11] Kowalski,[12] Wilson Fox,[13] Cheyne,[14] Shakespeare,[15] Sternberg,[16] Ernst,[17] Colin,[18] Tappeiner,[19] Williams,[20] and others, who form a legion of self-sacrificing, earnest, and conscientious workers, banded together in the interests of science and of their fellow-men, and inspired by the hope of being able at some future day to stay the progress of a malady which has been the occasion of more deaths than all the epidemics of disease, and all the disasters by land and sea, not only command the attention and support of the scientific world, but also the gratitude of every intelligent human being

With a rapid but steady pace those observers are advancing on the road which will soon lead to the desired goal The clouds of error are being dissipated by newly discovered truths, and to day the subject of tubercular phthisis is better understood than ever before It is my purpose this evening to bring to the notice of the fellows of the college some facts by which, I think, the contagiousness of tuberculosis is clearly demonstrated

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[1] "Morbid Anatomy," London 1793

[2] "Recherches sur la Phthisis," Paris 1810, p 66 Quoted by Dr Young Loc cit p 452

[3] "Die Etiologie der Tuberculose" Berliner klin Wochenschrift, 1882, No 15

[1] Gazette Méd de Paris Dec, 1865 Also Études de la Tuberculose" Paris, 1868

[2] Lungenentzuendung Tuberculose und Schwindsucht" 1873

[3] Archiv f experim Pathologie, Bd 1 1873 Also N Y Med Record March 1884

[4] Berliner klin Wochenschrift 1882, No 45

[5] Ibid

[6] Medical Record, New York, May, 1883

[7] Ibid

[8] "Consumption as a Contagious Disease," London, 1880 Translated by H D Cullimore

[9] Report of the Imperial Health Office, Berlin, 1884 See Review of Amer Jour of the Med Sci, July 1884

[10] Med News, Phila, Sept 6th 1884, p 275

[11] Deutsche med Wochenschrift No 19 188

[12] Wiener medizinische Presse Feb 24 1883

[13] Med Times and Gazette London, 1883, vol II p 672

[14] Practitioner, London, 1883 vol xxx

[15] Proceedings of the Phila Co Med Society, 1884, pp 315 3 0

[16] Medical Record New York Oct, 1884

[17] Amer Jour of the Med Sci, Oct, 1884

[18] Med Centralblatt, 1873 No 30

[19] Virchow's Archiv, Bd 82 1880

[20] The Lancet London Feb 24 and July 28, 1883

Careful researches by De Quatrefages,[1] Cook,[2] Livingston,[3] Rush,[4] Budd,[5] and others, seem to prove that tuberculosis first appeared among the inhabitants of Europe, and gradually manifested itself in those parts of the world with which they had intercourse If this is true, it is one of the best evidences of the contagiousness of phthisis

A contagious or infectious disease can have but one cause, and this is eminently true of tuberculosis, which does not arise from a variety of causes, but is solely due to the tubercle-bacillus Wherever this bacillus finds its proper nidus it will there develop and multiply, and, if this should be in living animals or human beings, the progress of the disease will be determined by the character and amount of food offered for the growth of this germ, thus with a nidus rich and plentiful we may have a case of acute phthisis lasting not more than thirteen days[6], and, on the other hand, if the pabulum is poor and scant, the case may be a chronic one extending over a period of twenty five years, such a case having occurred in my own practice

The bacilli may enter the system through the lungs or by the stomach The air we breathe, as well as the food we take, especially in the vicinity of the phthisical, may be laden with these germs The air of the ventilating flues at the Brompton Hospital, when carefully examined, was found to contain tubercle bacilli in fair abundance[7] The sputa of tuberculous patients drying upon our streets is ground into an impalpable powder by the feet of pedestrians, and is then disseminated through the air to be inhaled alike by the healthy as well as those predisposed to tuberculosis Such sputa, mixed with the dirt of the street, have been collected, dried and powdered again, at frequent intervals during a period of several months Guinea-pigs were then inoculated with this matter and in a short time the animals thus treated died from tuberculosis[8]

To admit that the tubercle bacillus is a pathological product is to express a belief in spontaneous generation,[9] and I feel sure that none of my enlightened hearers are prepared to subscribe to that doctrine

It is asserted by some pathologists, that other matter or irritant than the tubercle-bacillus is capable of producing the disease This idea is not a new one, for Richard Morton says· "Chalky stones that are preternaturally bred in the lungs, or nails and other hard bodies slipping down into the lungs when persons laugh, are to be recorded among the causes of a consumption of the lungs,"[1] and he narrates a case, p 247

It is also claimed by a number of writers that certain callings or occupations may be a cause of tuberculosis, owing to fine particles of dust inhaled by those employed Thus coal miners, dry grinders, stone cutters, moulders, operatives in cotton and woollen mills, etc, are apt to have the disease But those who believed that the dust breathed by individuals engaged in these occupations might occasion phthisis were evidently oblivious of the fact that the air carried, in the form of germs, far more potent factors, and that while the dust may have produced an irritation of the air passages, the presence of the tubercle-bacilli was essential to the production of the disease The inhalation of irritants, or lowered vitality, occasioned by certain occupations, may cause the predisposition, but they are never the cause of the disease *per se*

Not all the predisposing causes united could in any instance induce tuberculosis without the advent of the tubercle-bacillus That something more is needed was admitted by Pollock twenty years ago, when he declared that there must be "some subtle agent to precipitate, concentrate, and shape these elements of disease into tubercle."[2] And Da Costa says, "whatever it be, is something special"[3]

Experiments have demonstrated, beyond doubt, that it is impossible to induce true tuberculosis in any case where proper precautions have been taken to remove from the irritant used all living germs This is now accepted as a fact by many of those who once held a contrary opinion Wilson Fox, Cheyne, Sternberg, and others, who performed these experiments under the conditions mentioned, have acknowledged that under such circumstances it was impossible to produce the disease

Objections are also made to the fact that these bacilli are the cause of tubercle, because they were not found in all the cases of tuberculosis examined by certain investigators It is fair to presume that in these instances they must have escaped detection, since bacilli have been found in every case of tuberculosis examined by careful observers

Many instances are recorded in which foreign bodies have been carried into the lungs by gunshot wounds or otherwise, without occasioning much disturbance in the parts, or seriously affecting the health

Rush,[4] with his experience of the revolutionary war, declared that he had never known a case of phthisis to result from wounds in the lungs, and this observation was supported by the Surgeon General of the Royal Army[1]

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[1] 'The Human Species," by A De Quatrefages, N Y, 1883 pp 428, 430

[2] Ibid

[3] Ibid

[4] Medical Inquiries and Observations," Philadelphia, 1789 p 137

[5] The Lancet London, 1867 Vol II pp 451, 452

[6] Medical Diagnosis,' by J M Da Costa M D, LL D 6th Ed Philadelphia, 1884 p 370

[7] The Lancet London, July 28, 1883

[8] Med and Surg Reporter' Philadelphia, 1884 vol I p 697

[9] Floating-matter of the Air" By John Tyndall, M D New York, 1882, pp 277, 320

[1] Loc cit p 67

[2] The Elements of Prognosis in Consumption London, 1865, p 337

[3] Phila Med Times June 19, 1880

[4] Medical Inquiries and Observations, Phila, 1805, Vol II, pp 72, 73

A number of cases of gunshot wounds of the lungs occurred during the late war, but, as far as known, they were not the occasion of any death by phthisis[2]

I am free to admit that, in cases where a predisposition exists, it may be still further developed by the presence of an irritant, just as a furuncle in one individual may be harmless, and in another the starting point of a cancer The late General Baxter,[3] of this city, received a wound in the lungs on the 6th of May, 1864, and was more or less actively engaged in his duties until twelve years afterward, when, during a fit of coughing, he ejected what appeared to be a hardened bit of pus This, upon examination, proved to be the envelope of a small piece of coarse, red cloth, half an inch in diameter (such as is used for the stiffening and padding of coats), which had been carried into his lungs at the time he received the wound in 1864 During all this interval there had been a constant suppuration of the lungs, occasioning considerable discomfort, but not sufficient to render him unable to fill several important positions demanding his careful attention Three years after expelling the foreign body (seventeen years from the time he received the wound) he died, it is said, from phthisis In this instance, admitting that he died from phthisis, a predisposition to the disease was evidently established by a greatly lowered vitality, occasioned by the long-continued suppuration For twelve years he lived without a sign of phthisis, but after he had rid his lungs of the original irritant the bacillus tuberculosis found its way to the rich soil so long prepared for its reception, and there multiplied until the life of the individual was ended

So certain diseases, occasioning an irritation or a lowered vitality of the pulmonary mucous membrane, have the reputation of being the indirect causes of tuberculosis Measles, especially when occurring in children of phthisical parents, are liable to have consumption as a sequel The mucous membranes are implicated in this disease, probably more so than in any of the eruptive fevers, the epithelium is cast off, and the denuded membrane exposed to the direct contact of the tubercle bacillus

It has been satisfactorily demonstrated that tuberculosis may be caused by inoculation in the human subject Laennec, while examining a vertebra containing tubercle, slightly wounded one of his fingers with the saw blade In the site of this wound a small, rounded tumor subsequently appeared, which, upon investigation, exhibited all the physical characters of a tubercle It was destroyed by the application of an escharotic, and no bad effects resulted from it[1]

Another instance was that of a fisherman free from tuberculosis, but suffering from gangrene of the toe, who was purposely inoculated Thirty-seven days after the experiment he died, and the autopsy revealed a tuberculous deposit in the lungs and liver[2]

But the most satisfactory evidence of the effects of inoculation of tubercle is that presented in the case recorded by Dr E A Tscherning[3] The subject, employed as cook in the family of Prof H, was a perfectly healthy woman, about twenty-four years of age, with a history unexceptionally free from any hereditary taint of scrofulous or tuberculous affections After a short illness the Professor died of phthisis The cook unfortunately broke the glass sputum cup used by her employer, and a spicula from it punctured one of her fingers Fourteen days afterward there appeared at this point what seemed to be a felon This was treated at Prof Studgaard's clinic, and at the end of a few weeks the finger was much better A little nodule, however, about half as large as a pea, was found to exist in the subcutaneous connective tissue, which after a while became tender and œdematous This was now cut out, and the wound healed readily About three months from the time of the accident Prof Studgaard found that the sheath of the tendon was thickened, and two cubital and two axillary glands were enlarged He disarticulated the middle finger, and the tendon, with its thickened sheath, as well as the enlarged glands at elbow and axilla, were dissected away Upon examination the sheath of the tendon was found to be filled with pale granulations Sections of the sheath and of the extirpated glands were subsequently subjected to microscopic investigation, and numerous tubercle-bacilli found in them, which positively established the peculiar character of the affection

Dr Tscherning has observed upwards of thirty cases of localized tuberculosis, and in each instance the microscopical appearances were the same as in this case

Many eminent men, by their constant attendance upon the phthisical, and by their close and frequent study of the *post-mortem* conditions of their cases, have been made victims to the disease themselves Among those who have met death in this way may be mentioned Bayle, Laennec, Delaburg, Dance, Young-Thomas, and many other names could be added

Much stress has been laid upon heredity as being one of the chief causes of the vast mortality from this disease It is my belief that phthisis is never transmitted from parent to child, it is simply a predisposition that is inherited By predisposition I mean a greatly lessened power of resistance in the tissues, especially in the lymphatic system. If tuberculosis was inherited we might expect to find some indications of this in the fœtus, but the observations of Guizot,[1] Gluge,[2] Heller,[3] and Virchow[4] have shown that this is not the case. In 1300 fœtuses examined by Heller there was no evidence of a tuberculous taint in any one of them, notwithstanding the fact that in one instance the patient died of phthisis with the fœtus *in utero*. Virchow, with his experience of more than fifty years, says: "He had not seen a single case of direct transfer in the fœtus." This also holds true in regard to the offspring of animals which have been under observation while suffering from tuberculosis; there is no instance on record in which they have exhibited a trace of the disease.[5]

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[1] That the excretion of these bacilli might prove to be the *materies morbi*, was suggested by me some time ago and this opinion is also entertained by Dr G M Sternberg, U S A who subsequently made the same suggestion in the Med Record N Y, Oct 25, 1884

Med and Surg Hist of the War Second issue, 1875, Part I, Surg Vol, pp 478, 481

The Daily Evening Telegraph, Philadelphia May 10, 1881

[1] Diseases of the Chest Translated by J Forbes, M D London, 1834 p 305

[2] Gazette Med 1872, p 192 Quoted in Biennial Retrospect of Med and Surg 1871–2 p 38

[3] Hospitals-Tidende, Copenhagen, Dec 17, 1884

The presence of the disease in infants is undoubtedly due to the bacillus, or its spores, contained in the milk of the phthisical mother, or in the air it is constantly obliged to breathe.[6] In other words, the disease is not transmitted, but it is acquired. I have elsewhere shown the fallacy of the hereditary transmission of the disease.[7]

There are but few insurance companies that will accept as a risk any one whose family history is not clear of tuberculosis; hence it would seem that such careful exclusion would remove all questions of hereditary transmission in those losses which they may sustain by deaths from phthisis. One of the most conscientious companies in this respect is The Mutual Life Insurance Company, of New York. It is especially careful in excluding such risks, and will not only refuse to accept an applicant who has a phthisical history, howsoever remote, but will not regard an application in which there is the least evidence of a predisposition to the disease, no matter what the age of the applicant may be. Notwithstanding the exercise of an unusual amount of vigilance, they are nevertheless obliged to declare that "Consumption has been the occasion of more deaths than any other disease, giving a percentage of $17\frac{61}{100}$ of the total mortality, while deaths recorded under other headings, but properly belonging to this, would swell the number to 20 per cent."[8] Here, then, is a freedom from a hereditary taint as far as rigid examinations are capable of determining it. Under such circumstances the rate of mortality is surprising, to those, at least, who have faith in the hereditary transmission of the disease. A few years previous to that in which this report was made, the death rate from consumption in the adult male population of New York city was $30\frac{17}{100}$ per cent. This is but little over 13 per cent. of the deaths among those who were considered especially exempt from the disease.

It would be impossible to enumerate the so-called causes of tuberculosis. The disease has been attributed to every imaginable influence which could occasion a morbid condition of the system. This error is readily accounted for when it is understood that any influence which will bring about a lowered vitality of the body will induce a predisposition to the disease, which is established by the presence of the bacillus tuberculosis.

AGE.—In looking over "health reports" and other statistics I have been surprised at finding records relating to the time of life when tuberculosis is most prevalent, which are entirely at variance with the ideas entertained by many practitioners. It is very generally believed that at the age of puberty, especially in those supposed to possess hereditary taint, phthisis is most apt to manifest itself, and that the liability to contract the disease is lessened with advancing years. It seems, however, that this is not the case, for in early childhood and at puberty the mortality is less than at any other period of life. There is reason for believing that the best way to determine the time of life at which the disease is most fatal is to compare the death rate occasioned by it at certain periods of life with the number of living persons at the same age. This has been done by several reliable persons, including Mr. Edgar Holden,[1] and I will read to you an interesting table prepared by A. Wuerzberg, the librarian of the Imperial Health Office at Berlin, Prussia.[2] This table is as follows:

Of 10,000 individuals aged 0–1 year there die annually of consumption $25\frac{45}{100}$.
Of 10,000 individuals aged 1–2 years there die annually of consumption $20\frac{41}{100}$.
Of 10,000 individuals aged 5–10 years there die annually of consumption $4\frac{66}{100}$.
Of 10,000 individuals aged 15–20 years there die annually of consumption $18\frac{87}{100}$.
Of 10,000 individuals aged 20–25 years there die annually of consumption $30\frac{24}{100}$.
Of 10,000 individuals aged 25–30 years there die annually of consumption $36\frac{78}{100}$.
Of 10,000 individuals aged 30–40 years there die annually of consumption $41\frac{12}{100}$.
Of 10,000 individuals aged 50–60 years there die annually of consumption $67\frac{84}{100}$.
Of 10,000 individuals aged 60–70 years there die annually of consumption $93\frac{18}{100}$.
Of 10,000 individuals aged 70–80 years there die annually of consumption $61\frac{72}{100}$.
Of 10,000 individuals aged over 80 years there die annually of consumption $25\frac{80}{100}$.

This table goes to show that at the two extremes of life, where vitality is at the lowest, thus lessening the power of resistance, the disease is most fatal.

It must not be forgotten that among the many causes which lead to a predisposition to tuberculosis, conditions of mental depression play an active part. Bad habits, or immoral conduct,

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[1] Quoted by Dr. Durant. Trans. of the N. Y. State Med. Soc., 1878, p. 174.

[2] Ibid.

[3] Medical News, Phila., 1884, p. 302.

[4] Ibid.

[5] Practitioner, London, Vol. XXX, 1883, p. 318.

[6] British Med. Jour., 1879, Vol. II, p. 619.

[7] "Reasons for Believing in the Contagiousness of Phthisis." Read before the Philadelphia County Med. Society, June 11, 1884.

[8] Preliminary Report of the Mortality Experience of The Mutual Life Insurance Company, of New York. New York, 1875, p. 12.

[1] The Medical Record, New York, July 12, 1884.

[2] Amer. Jour. of the Med. Sci., July, 1884, p. 192.

[illegible] regrets, or domestic infelici[illegible] long-continued fret and worry, [illegible] depression of this character more [illegible] case recently came under my [illegible] the patient's health was first [illegible] unfortunate condition of his [illegible] they were the occasion of con[illegible] worriment for several years, [illegible] brought him into a condition of ner[illegible] This was soon followed by the [illegible] and he died about six months [illegible] In this case the predisposition was [illegible] a lowered vitality, induced by [illegible] mental depression, aided some[illegible] the patient's occupation, which was that [illegible] There was no hereditary ten[illegible] disease, and had he been more fort[illegible] domestic relations he might still be [illegible]

[illegible] interesting cases, which I have [illegible] investigated, will go to support some [illegible] I have made in my paper

[illegible]—J E, an invalid, was married, twelve [illegible] afterward his wife gave birth to a child, [illegible] the following month the father died of [illegible] At the age of five months the child [illegible] of marasmus, and in sixteen months after [illegible] the wife died of phthisis She [illegible] a healthy and long-lived family, but had [illegible] the same room with her husband dur[illegible] illness

[illegible]—S Y was a healthy young man, who [illegible] a lady that was physically below par [illegible] a year after marriage she gave birth to a [illegible] from this period onward she declined [illegible] and ultimately died of phthisis five [illegible] afterward Eighteen months prior to her [illegible] her husband exhibited symptoms of tuber[illegible] laryngitis, and died of consumption four [illegible] before his wife In this case I ascertained [illegible] wife had come from a tuberculous fam[illegible] parents and five sisters having died from [illegible] disease) while in the husband's family there [illegible] a trace of tuberculosis, his parents living [illegible] beyond the allotted threescore and ten, and [illegible] brothers and sisters in the full enjoyment of [illegible] This gentleman, who was greatly devoted [illegible] wife, had been constant in his attendance [illegible] her and had slept in the same room

[illegible]—I R, a young man, aged twenty-seven [illegible] of very temperate and regular habits, who [illegible] no family history of tuberculosis, and [illegible] constitution and general health were ex[illegible] married a young lady of delicate health, whose family consumption [illegible] caused the [illegible] of father, mother, and [illegible] sisters The [illegible] occupation of the young man [illegible] ket [illegible] in a railroad office A[illegible] a [illegible] years after his marriage [illegible] after the commencement [illegible] of phthisis Two years a[illegible] to his death his wife d[illegible]

[illegible] the first cas[illegible] ted to [illegible] robust bride certainly contracted the disease from her husband In the second case the young man, with an excellent family history, and in good health at the time of his marriage, not only contracted the disease from his phthisical wife, but died of it four weeks before she did In the third case we have a healthy and vigorous young man, with an excellent family history, marrying a phthisical girl from a phthisical family, and what is the result? Through his close companionship with his consumptive wife he contracts the disease, which occasions his death two and a half years before his wife succumbs to the malady

I might add to this list a number of similar cases, were it necessary to do so, for I have the notes of many which prove conclusively the contagiousness of phthisis Indeed, any one can lay his hands upon recorded cases without number which would convert even the most sceptical to this belief

No one, not even the non-contagionists, can declare that the cases I have narrated are simply "coincidences" The experience of medical men, especially of those who are engaged in the treatment of lung disorders, must be similar to my own, and I cannot see how there can be a question in their minds in regard to the contagiousness of phthisis

If the most convincing proof of the truth of a comprehensive theory lies in its power of absorbing and finding a place for new facts, and its capability of interpreting phenomena which had previously been looked upon as unaccountable anomalies,[1] then I know of no theory more truthful than the one which I have advocated before you this evening It will fully explain every phenomenon connected with this malady, the universal mortality it occasions in every part of the world, and why one member of a family after another, with no hereditary predisposition, has succumbed to its power

It is a singular fact that in all the recorded cases where the disease has been occasioned by close association with the phthisical, as in nursing, it has been unusually rapid in its course, frequently carrying off those unfortunates during the lifetime of those from whom the disease was contracted

And what does all this teach us? Simply this that our real strength in battling with this terrible disorder lies not so much in medication as in the application of hygienic and sanitary laws

Surgeon General von Lauer, of the Royal Prussian War Department, in a letter dated October 16th, 1884, kindly enclosed to me a copy of the instructions which he issued in regard to diseases of the lungs They are of such importance that I quote them in full It is also of interest to know that in Austria, where the bacillary origin of tuberculosis met with greater opposition than anywhere else in Europe, the Government has recognized its infectious nature, and has issued official instructions similar to these of Surgeon General Von Lauer The same precautionary measures should be adopted in the hospitals of our own country, and it is fair to assume that this will be done

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[1] [illegible]butions to the Theory of Natural Selection By A R [illegible] London, 1870, p 45

[Copy]

DEPARTMENT OF WAR

BERLIN, Aug 31st, 1882

The various detailed reports which in pursuance with request of Nov 24th, 1881 (No 157 H M M A) have reached this Department, have clearly shown that there exists no material difference of opinion regarding the reasons for the high annual sick and mortality rate from consumption during the time of active service

The universally acknowledged causative relations will necessarily lead to still greater caution in the treatment and care of those exhibiting the earlier symptoms of chronic pulmonary disease as well as those in whom a predisposition is suspected or clearly discernible The prescribed regulations should therefore be borne in mind in order that the number of consumptives in the army may thereby be diminished The following instructions must always be carefully observed

1 Although the predisposition to affections of the lungs cannot be objectively determined, and the time permitted the surgeon during the recruiting service often not extended enough to permit a careful and searching examination to determine this question, the medical officer in charge is earnestly urged to consider the build, configuration, and exhaustibility of the thorax In this connection he is to adhere closely to the instructions of April 8th, 1877 regarding the normal limitations Shoemakers and tailors of delicate frame require very careful inspection of the chest organs

When the circumstances attendant upon the recruiting service are not favorable to exact examination special attention is to be paid to more rigid inquiry when the recruit reaches his regiment, as directed in Par 13 of the instructions Here it will be of value in forming an opinion in your cases to seek direct official information regarding family history or previous disease of the lungs or pleura

But in order not to lose sight of those cases which have either been overlooked at the first inspection, or whose character could not then be ascertained, the recommendation of the various corps surgeons that with the coöperation of the proper authorities medical examinations should be repeatedly made at stated intervals, should be particularly borne in mind, with special attention directed to those in whom disease of the respiratory organs is suspected Special records carefully noting the condition of each examination must be kept The extent to which the weakly are to be spared the arduous work of training must be determined by the requirements of individual cases The industrious use of douche baths, to harden the skin and accustom to exposure, naturally suggests itself here •

2 The attention of surgeons is directed to the fact that the instructions (Par 5 Sec 4, to Par 7, Sec 2) do not permit a judgment upon volunteers without considering their fitness for field service Complete fitness, therefore, is indispensable to a declaration of efficiency

3 For convalescents from acute disease of the respiratory organs, a prolonged period of after treatment and care is desirable If the circumstances of the patient make home attention attainable, and only then, is a lengthy furlough to be recommended, Those returning from such furloughs are to be carefully reexamined and, if necessary, their transference to the appropriate health resort taken under advisement

4 That the first symptoms of disease of the lungs may not be overlooked in making the round of the barracks, particular attention should be paid to apparently mild 'catarrhs," utilizing, if necessary, evening temperature measurements Doubtful cases should be transferred to hospital for observation

5 The opinion of many medical officers, that prompt measures should be taken for the discharge of sufferers from chronic pulmonary disease, should not be forgotten That even one attack of hæmorrhage (Bluthusten), if it is proven to be of undoubted pulmonary origin, is sufficient cause for discharge and is especially emphasized That the early dismissal of cases affording no probability of usefulness to the service removes a source of infection for hospital and barrack, must be viewed by no means the least important advantage of this provision

Now that experimental pathology has furnished exact scientific corroboration of the theory of the infectiousness of phthisis, more importance than ever must be attached to the separation, both in hospital and barrack of those afflicted with or suspected of phthisis, from other patients, especially from those suffering with inflammation of the lungs or recent bronchial catarrh The sputum being the principal carrier of the disease germ, and consequently the principal source of infection, provision for its removal and disinfection (Unschädlichmachung) follows as a matter of course

In answer to the question raised by this Department as to whether new measures for the diminution of the number of cases of phthisis, with particular reference to the necessity for the establishment of climatic summer or winter stations for their treatment, were called for, the responses were unanimous against such establishment The indications for them were considered uncertain and the existing provision adequate for the present necessities of the army The Department endorses this view, and is convinced that the careful observance of the general directions herewith transmitted will be of interest and service to the army as well as to the patient Although tedious attempts at cure by long continued stay at climatic stations may be considered of doubtful value to the phthisical patient and not at all likely to furnish the army with a soldier fit for field service, the prompt despatch of a convalescent from an acute non-phthisical affection of the respiratory apparatus to an appropriate station, is warmly to be commended Such station from among those at the disposal of the Department, is to be carefully selected, and treatment conscientiously carried out

This communication, with five copies, is transmitted to you, with the request that you submit your views to the General Commanding, and instruct the sanitary officers of the corps to be guided thereby

[Signed] V LAUER-STRUBE,
Department of War, Army Medical Division

To all Royal Corps Surgeons, No 230, 4, 82, M M A , 64, 9–84, M M A

Like other disease germs the tubercle-bacilli are carried by the air and will, of course, be found to be more plentiful in the vicinity of the victims of tuberculosis A single bacillus may as surely induce the disease as the presence of a great number, and since we are at no time free from the chance of inhaling this germ, our safety lies in avoiding a "predisposition" to lung troubles In order to determine whether the bacilli might be readily found in the air of the street, or of places of public resort, I had constructed the instruments which I now explain

The first apparatus I had made was after the plan of the ordinary inhaler The long tube passed into a little well at the bottom of the bottle containing glycerine, which was intended to retain any germs carried by the air passing through it, by rotating the bottle its sides were also smeared with glycerine, to give a still larger surface of glycerine for the contact of the air which, after entering the funnel, was forced which lead to bitter regrets, or domestic infelicity, occasioning long-continued fret and worry, will produce a depression of this character more or less marked A case recently came under my notice in which the patient's health was first affected by the unfortunate condition of his domestic affairs, they were the occasion of continued anxiety and worriment for several years, and finally brought him into a condition of nervous exhaustion This was soon followed by the signs of phthisis, and he died about six months afterwards In this case the predisposition was certainly due to a lowered vitality, induced by long-continued mental depression, aided somewhat by the patient's occupation, which was that of a bookkeeper There was no hereditary tendency to the disease, and had he been more fortunate in his domestic relations he might still be living

The following interesting cases, which I have personally investigated, will go to support some of the assertions I have made in my paper

Case 1—J E, an invalid, was married, twelve months afterward his wife gave birth to a child, and in the following month the father died of phthisis At the age of five months the child died of marasmus, and in sixteen months after her accouchement the wife died of phthisis She was of a healthy and long-lived family, but had occupied the same room with her husband during his illness

Case 2—S Y was a healthy young man, who married a lady that was physically below par About a year after marriage she gave birth to a child, and from this period onward she declined in health, and ultimately died of phthisis five years afterward Eighteen months prior to her death her husband exhibited symptoms of tubercular laryngitis, and died of consumption four weeks before his wife In this case I ascertained that the wife had come from a tuberculous family (her parents and five sisters having died from the disease), while in the husband's family there was not a trace of tuberculosis, his parents living far beyond the allotted threescore and ten, and his brothers and sisters in the full enjoyment of health This gentleman, who was greatly devoted to his wife, had been constant in his attendance upon her, and had slept in the same room

Case 3—I R, a young man, aged twenty-seven years, of very temperate and regular habits, who presented no family history of tuberculosis, and whose constitution and general health were excellent, married a young lady of delicate health, in whose family consumption had caused the death of father, mother, and three sisters The occupation of the young man was that of ticket agent in a railroad office About three and a half years after his marriage he became ill, and a year after the commencement of his illness died of phthisis Two years and a half subsequent to his death his wife died of the same disease

In [illegible] first case narrated to you the healthy, robust bride certainly contracted the disease from her husband In the second case the young man, with an excellent family history, and in good health at the time of his marriage, not only contracted the disease from his phthisical wife, but died of it four weeks before she did In the third case we have a healthy and vigorous young man, with an excellent family history, marrying a phthisical girl from a phthisical family, and what is the result? Through his close companionship with his consumptive wife he contracts the disease, which occasions his death two and a half years before his wife succumbs to the malady

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It is a singular fact that in all the recorded cases where the disease has been occasioned by close association with the phthisical, as in nursing, it has been unusually rapid in its course, frequently carrying off those unfortunates during the lifetime of those from whom the disease was contracted

And what does all this teach us? Simply this that our real strength in battling with this terrible disorder lies not so much in medication as in the application of hygienic and sanitary laws

Surgeon General von Lauer, of the Royal Prussian War Department, in a letter dated October 16th, 1884, kindly enclosed to me a copy of the instructions which he issued in regard to diseases of the lungs They are of such importance that I quote them in full It is also of interest to know that in Austria, where the bacillary origin of tuberculosis met with greater opposition than anywhere else in Europe, the Government has recognized its infectious nature, and has issued official instructions similar to these of Surgeon General Von Lauer The same precautionary measures should be adopted in the hospitals of our own country, and it is fair to assume that this will be done

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[1] Contributions to the Theory of Natural Selection By A R Wallace London, 1870, p 45

[Copy]

DEPARTMENT OF WAR

Berlin, Aug 31st, 1882

The various detailed reports which in pursuance with request of Nov 24th, 1881 (No 157 H M M A) have reached this Department, have clearly shown that there exists no material difference of opinion regarding the reasons for the high annual sick and mortality rate from consumption during the time of active service

The universally acknowledged causative relations will necessarily lead to still greater caution in the treatment and care of those exhibiting the earlier symptoms of chronic pulmonary disease as well as those in whom a predisposition is suspected or clearly discernible The prescribed regulations should therefore be borne in mind in order that the number of consumptives in the army may thereby be diminished The following instructions must always be carefully observed

1 Although the predisposition to affections of the lungs cannot be objectively determined, and the time permitted the surgeon during the recruiting service often not extended enough to permit a careful and searching examination, to determine this question, the medical officer in charge is earnestly urged to consider the build, configuration, and exhaustibility of the thorax In this connection he is to adhere closely to the instructions of April 8th, 1877, regarding the normal limitations Shoemakers and tailors of delicate frame require very careful inspection of the chest organs

When the circumstances attendant upon the recruiting service are not favorable to exact examination special attention is to be paid to more rigid inquiry when the recruit reaches his regiment, as directed in Par 13 of the instructions Here it will be of value, in forming an opinion in your cases to seek direct official information regarding family history or previous disease of the lungs or pleura

But in order not to lose sight of those cases which have either been overlooked at the first inspection, or whose character could not then be ascertained, the recommendation of the various corps surgeons that with the coöperation of the proper authorities, medical examinations should be repeatedly made at stated intervals, should be particularly borne in mind, with special attention directed to those in whom disease of the respiratory organs is suspected Special records carefully noting the condition of each examination, must be kept The extent to which the weakly are to be spared the arduous work of training must be determined by the requirements of individual cases The industrious use of douche baths, to harden the skin and accustom to exposure, naturally suggests itself here •

2 The attention of surgeons is directed to the fact that the instructions (Par 5 Sec 4, to Par 7, Sec 2) do not permit a judgment upon volunteers without considering their fitness for field service Complete fitness, therefore, is indispensable to a declaration of efficiency

3 For convalescents from acute disease of the respiratory organs, a prolonged period of after treatment and care is desirable If the circumstances of the patient make home attention attainable, and only then, is a lengthy furlough to be recommended, Those returning from such furloughs are to be carefully reexamined and, if necessary, their transference to the appropriate health resort taken under advisement

4 That the first symptoms of disease of the lungs may not be overlooked in making the round of the barracks, particular attention should be paid to apparently mild "catarrhs," utilizing, if necessary, evening temperature measurements Doubtful cases should be transferred to hospital for observation

5 The opinion of many medical officers, that prompt measures should be taken for the discharge of sufferers from chronic pulmonary disease, should not be forgotten That even one attack of hæmorrhage (Bluthusten), if it is proven to be of undoubted pulmonary origin, is sufficient cause for discharge, and is especially emphasized That the early dismissal of cases affording no probability of usefulness to the service removes a source of infection for hospital and barrack, must be viewed by no means the least important advantage of this provision

Now that experimental pathology has furnished exact scientific corroboration of the theory of the infectiousness of phthisis, more importance than ever must be attached to the separation, both in hospital and barrack of those afflicted with or suspected of phthisis, from other patients, especially from those suffering with inflammation of the lungs or recent bronchial catarrh The sputum being the principal carrier of the disease germ, and consequently the principal source of infection, provision for its removal and disinfection (Unschädlichmachung) follows as a matter of course

In answer to the question raised by this Department, as to whether new measures for the diminution of the number of cases of phthisis, with particular reference to the necessity for the establishment of climatic summer or winter stations for their treatment, were called for, the responses were unanimous against such establishment The indications for them were considered uncertain, and the existing provision adequate for the present necessities of the army The Department endorses this view, and is convinced that the careful observance of the general directions herewith transmitted will be of interest and service to the army as well as to the patient Although tedious attempts at cure by long continued stay at climatic stations may be considered of doubtful value to the phthisical patient, and not at all likely to furnish the army with a soldier fit for field service, the prompt despatch of a convalescent from an acute non-phthisical affection of the respiratory apparatus to an appropriate station, is warmly to be commended Such station, from among those at the disposal of the Department, is to be carefully selected, and treatment conscientiously carried out

This communication, with five copies, is transmitted to you, with the request that you submit your views to the General Commanding, and instruct the sanitary officers of the corps to be guided thereby

[Signed] V Lauer-Strube,
Department of War, Army Medical Division
To all Royal Corps Surgeons, No 230, 4, 82, M M A , 64,
9-84, M M A

Like other disease germs the tubercle-bacilli are carried by the air, and will, of course, be found to be more plentiful in the vicinity of the victims of tuberculosis A single bacillus may as surely induce the disease as the presence of a great number, and since we are at no time free from the chance of inhaling this germ, our safety lies in avoiding a "predisposition" to lung troubles In order to determine whether the bacilli might be readily found in the air of the street, or of places of public resort, I had constructed the instruments which I now explain

The first apparatus I had made was after the plan of the ordinary inhaler The long tube passed into a little well at the bottom of the bottle containing glycerine, which was intended to retain any germs carried by the air passing through it, by rotating the bottle its sides were also smeared with glycerine, to give a still larger surface of glycerine for the contact of the air which, after entering the funnel, was forced through the apparatus by using the pump This was undoubtedly an effective germ trap, but the impossibility of drying the glycerine, which it was necessary to do in order to obtain microscopic proof of the presence of bacilli, obliged me to devise another method of obtaining them

The second trap consisted of a brass cylinder containing a series of snugly fitted steel discs Each disc was perforated in such a manner that, when placed together, the openings formed a cone Between each of these discs, across their openings, thin layers of pyroxylin were placed, the discs were then introduced into the cylinder, which was tightly fastened To one end of the cylinder the pump connection was affixed, and the other end was connected with the funnel, which was placed over the ventilating flue, to take the air When the pump was put in motion it drew the air through the apparatus and necessarily through the veils of pyroxylin held in position by the metal discs the pyroxylin thus serving to intercept the passage of any germs

With this apparatus I visited a number of places of public resort, and through the courtesy of those in authority I was given free access to the parts of the establishments wherein the exit flues were located These flues, in all instances except one, were placed in the ceiling of the auditorium and directly over the audience Here I placed the funnel-shaped extremity of the apparatus, and its pump was kept continuously in motion until fifteen or twenty minutes after the audience had retired This experiment was repeated a number of times at each establishment I visited The trap was then dismantled, the thin layers or veils of pyroxylin were removed from between the steel discs and placed in the hands of Drs E O Shakespeare and Morris Longstreth for microscopic examination These skilful microscopists have made the following reports

PHILADELPHIA Feb 3 1885

DEAR DOCTOR,—The specimens of pyroxylin (Nos 1, 2, 3, and 4) which you sent me to examine microscopically for the presence or absence of tubercle-bacilli were variously treated Nos 1, 2, and 3 were separately dissolved in a mixture of absolute alcohol and strong ether The collodion thus formed was handled in either of two ways *a* A thin film was deposited on a thin cover glass, such as is used in mounting of microscopic objects, and was stained in the manner recommended by Koch for the demonstration of tubercle bacillus, or, *b* The collodion was excessively diluted in a test-tube, by addition of relatively large quantities of alcohol and ether, and then allowed to stand for some hours, in order that suspended portions might fall to the bottom The fluid was then carefully drawn off The sediment at the bottom of the test tube was mixed with a drop or two of sterilized beef peptone fluid, such as I keep in stock for bacteria culture use and was spread in a thin film upon a cover glass This film was also treated in the manner above mentioned for the demonstration of the tubercle bacilli I had however, considerable trouble in following these methods There was great difficulty in decolorizing the film, many times this seemed quite impossible

In these three specimens of pyroxylin I found no bacilli tuberculosis

No 4 I determined to treat in another manner I employed two different methods *a* I took portions of the pyroxylin and stained it, as I would do sections of tissue in which I wished to seek for tubercle bacilli, namely in the manner recommended and practised by Koch methyl-violet being the color used in the aniline oil mixture These were subsequently mounted in balsam in the usual way without converting them into collodion *b* Other portions of the pyroxylin were stained with fuchsin as the color of the aniline oil mixture After staining in the usual way including the methyl blue as contrast color, the pyroxylin was placed on an object glass slide for the microscope and converted into collodion by using a mixture of ether and alcohol As soon as it was dissolved a thin glass cover was placed over it This latter method, in my hands, was by far the most satisfactory

In the portion of pyroxylin prepared by the "*a*" method I found two objects which, by their size, shape, and color, had they been isolated and seen in sputum, I would have taken for tubercle bacilli, but these objects were attached to fibres of pyroxylin, which in spite of the successive action of weak nitric acid and of alcohol, and in spite of the subsequent use of Bismarck brown as a contrast color, were also tinted violet This observation must, therefore be classed as negative, or at least doubtful

In the portion of pyroxylin treated by the latter method, "*b*," I found after painstaking search one bacillus, which on account of its size, shape, and quite characteristic color (bright-red, the ground being blue), I had no doubt was a tubercle-bacillus There were two other rod like forms, which, in size and shape, appeared identical with tubercle bacilli, but the color which they showed was so indistinct that it could not be safely made out I have to report, then, the finding of one tubercle bacillus in the specimen marked No 4 There were, of course, numerous other objects in all the specimens examined, but as you wished only to know of the tubercle-bacillus I have thought it needless to particularize concerning them Yours very truly

E O SHAKESPEARE

TO DR W H WEBB

PHILADELPHIA, Feb 4, 1885

DEAR DOCTOR,—In compliance with your request, I inclose you the following report on the examination of pyroxylin from your germ trap, in relation to the presence or absence of the bacillus of tuberculosis (Koch)

The material consisted of five small pledgets of cotton, contained in a small phial, sealed with paraffine,

The five portions were carefully kept apart, and examined separately

The staining method employed was that recommended by Koch Aniline oil and fuchsin, bleaching with dilute nitric acid, washing with dilute alcohol, contrast stain with methyl blue (in some slides), and washing finally in absolute alcohol The only variation made in this method of mounting, as usually practised, was in using a dammar medium instead of Canada balsam, which I have employed since I have found that the dammar hardens more rapidly than the other The examination of the specimens can be made with the oil-immersion lenses more promptly without the risks involved in displacing the cover-glasses, should the oil come in contact with the mounting medium It was found by a preliminary examination that four of the five specimens of cotton were not likely to furnish any number of bacilli and the further search among these four specimens was consequently abandoned

The fifth specimen labeled No 1, engaged the sole attention of further examination, as it was composed of the cotton which first met the current of air as drawn through the trap

The cotton was very much discolored by dust and other matter, particles of which could easily be shaken off from it Care however, was observed so as to lose as little as possible of these adhering matters

The staining bleaching and other steps in mounting, were carried out by first placing the cotton in a watch glass containing the aniline fuchsin stain, and allowing it to remain, tightly covered for twelve hours Portions of the cotton were then thinly spread on a cover-glass, and the subsequent steps of the operation carried on in this position It has been usual, I believe, in examining gun cotton, to detect the presence of objects capable of being shown by a differential staining, to convert the cotton into collodion by admixture of ether and alcohol This method I avoided in the chief examinations, as being essentially faulty, since if the bacilli should be present in a dried film of collodion, it would be impossible for the staining agents to come in contact with the micro organisms buried in the depth of the film

Very considerable difficulties and much tedious searching were encountered in the microscopic examination, owing to interlacing and overlying arrangement of the cotton fibres For although the strongest pressure was placed on the covers which the glass would stand—and many specimens were lost in this manner—nevertheless the depth of the material presented a field of much confusion The confusion was somewhat lessened, but not removed, by adding another step to the process of mounting, viz by treating the cotton, after staining and bleaching with a mixture of ether and alcohol, for the purpose of converting it into collodion While this treatment dissolved the cotton fibres, still some fibres of flax and wool were left It did not, of course, help the confusion due to large amounts of dirt particles which were present It was hoped that by thus making a collodion of the gun-cotton, after the staining process was completed, some advantages might be obtained Such, however, was not the case The examination of six slides from specimen No 1 gave the following results

Slide *a*, 1 bacillus, 1 doubtful
" *b*, 6 bacilli
" *c*, 3 "
" *d*, 1 bacillus
" *e*, none
" *f*, uncertain

It is not intended to convey the idea that these were the only bacilli present A very careful examination might reveal the presence of more organisms For the uncertainty of the examination excuse must be found in the nature of the materials dealt with, the impossibility of rendering the layer of material of uniform thickness as can be readily done with sputa and with sections of tissue, the very large amount of dust particles scattered through a layer of considerable thickness, the facts, also, which I have not seen alluded to previously, that many fibres of cotton have in them clefts, which retain staining material in spite of bleaching, many of these clefts closely approach in length and breadth the figures of the bacillus, and, finally, the short time which I have been allowed for the work since the specimens were placed in my charge for examination Yours very truly,

MORRIS LONGSTRETH

TO DR W H WEBB

The layer or veil of pyroxylin through which the air from the flues first passed seems to have stopped the passage of all germs and other atoms, and in this way acted as a trap, to the exclusion of the other veils of pyroxylin placed between the discs for that purpose Unfortunately, the portion submitted to Dr Shakespeare for examination was not of the first layer, and to this may be attributed his inability to find more than one bacillus

Furthermore, the number of bacilli found by Dr Longstreth in the minute particle of the material he examined seems to indicate the presence of vast numbers of these germs in the entire layer removed from the trap

And now, in conclusion, I desire it to be understood that I have spoken, not so much to maintain a proposition as to reveal the truth, and that in giving you the opinions of those who have beaten a path wherein we may the more easily travel, I have but done justice to a class of men equally endowed as ourselves to observe and to reason from cause to effect I would also state that the aim of this paper is simply to emphasize facts, leaving you to deal with them as your wisdom may dictate A careful analysis of the writings and investigations of those who have given special thought to the subject which I have treated, reveals the fact that since the time of Hippocrates there has been a gradual but steady progress toward the grand beacon which now illuminates our way The very slowness of the advance, the suspicion with which the announcement of every new development has been received, and the earnest criticism to which they have been subjected insures the safety of our position to day Apart from the ocular demonstration of scientific investigations of modern times, and from a purely clinical standpoint alone, the weight of evidence as to the contagiousness of tuberculosis must certainly be appreciated by you all Even those who do not acknowledge it in words, proclaim it by their manifestation of doubt, and quiet avowal that there is something lacking which will enable them to fix upon the cause of a disease maintaining such marked characteristics from age to age, and among all people

We are living in a scientific age, and the medical profession is thoroughly imbued with its spirit and import We deal with facts, and are little inclined to give heed to that which is purely speculative Such superstitions as the "Royal Touch" belong to a departed age "Coincidences" and "happened so's" serve no longer to answer our inquiries concerning the causes or nature of disease Never before have we been so well established in respect to the means and methods of making research and experiments in the domain of medicine, and never before have the searchers after its truths been more earnest in their efforts or more hopeful of grand results The discovery of the tubercle-bacillus is a scientific fact, all, with the same facilities, may see what others have seen It is the one thing tangible, describable, known by its peculiarities among entities as readily as one individual is known from another To doubt its existence in tuberculosis is to doubt the utility of scientific medical research, and to abandon further progress to the unstable dreams of theorists The sputa of the phthisical contain these germs, the air they exhale is loaded with them or their spores, and their introduction into the system of animals will always produce tuberculosis, *while nothing else will* These are not speculations, but demonstrable facts! Furthermore, clinical observations go to prove conclusively that healthy individuals, living in an atmosphere contaminated by the phthisical, will contract this disease, and not any other which might be due to a lowered vitality, from being in close quarters and breathing a vitiated air That there is yet much to be learned in regard to the tubercle-bacillus, there can be no doubt Still, having made a wide breach in the walls that hemmed in the mystery of tuberculosis, it behooves us to press on to its complete solution

I feel that I would be recreant to the cause I have espoused did I not avail myself of this opportunity to state that, in more than one instance, in articles recently published, the non-contagionists, it seems to me, have wilfully, unhesitatingly and without warrant, perverted the language, even absolutely falsifying the statements, of authors they quote in support of their cause That such reprehensible practices should be resorted to, for what must necessarily be but a momentary triumph, is of itself strong evidence of the vulnerability of their position, and requires no word of condemnation from me, nor would I think proper to notice it at this juncture, were it not to point out the necessity for all conscientious investigators to verify every and all citations by referring, wherever possible, to the original documents And if my feeble efforts have, in the slightest degree, advanced the cause of truth and humanity, my labor has not been in vain Now—

> "Say as you think, and speak it from
> your souls"
> 'What you do
> Still betters what is done'

A REALISTIC VIEW OF INEBRIETY

BY T D CROTHERS, M D,

SUPERINTENDENT WALNUT LODGE HARTFORD, CONN

Some time ago a physician wrote condemning very earnestly an article of mine, in which I asserted that inebriety was always a disease, passing through varied fixed stages, that could be recognized and successfully treated Also, that until this subject was taken up by physicians from the standpoint of exact science, no progress or practical results would follow To him, these and other statements were infidel errors of the gravest character My silence and refusal to enter into any controversy on this matter were construed as evidence of inability to sustain these statements, which stimulated him to read and publish a severe personal criticism, that he would gladly recall to day Soon after this, a member of his own family became an inebriate The case in brief was as follows A young man of weak nervous organization, with disordered nutrient taste, and without any special education or purpose in life, was sent to Europe to travel for his health and to enlarge his mind He soon fell in with drinking companions, and remained away two years, drinking wine continuously and often to great excess On his return, he seemed so well acquainted with wines, and their manufacture, that he was encouraged to go into a wine store Three years later he failed, and the interests of a large circle of friends suffered greatly He was a confirmed inebriate, and to-day is an incurable and heavy burden on his friends The physician who doubted my views with generous frankness wrote me that he realized in a most painful way the mistake he had made in not recognizing the distinct chain of physical causes in this case, which he might have prevented or averted long ago, but, unfortunately, now it was too late

Another similar case was that of a noted divine of New York, who for years has asserted very prominently "that inebriety could only be cured by making it odious and criminal to drink, and that the inebriate should be treated with severe punishment, rather than by mock sympathy as a sick man" A few years ago his son, an impulsive inebriate and professional man, was placed under my care His father manifested great anxiety that no one should trust his will power, and that he should be kept under strict discipline His son recovered, and was two years after well, and a strong temperance man The father still preaches the same dogmatic notions of the vice of inebriety, and the power of the pledge and prayer, and the impression of dishonesty or incapacity to recognize the truth is prominent in the minds of all who know these facts

Another instance, of a journalist whose writings have been noted as authority, but which, most unfortunately, have spread the greatest errors, may be of interest His father died insane during his infancy His mother was an invalid, and died of some brain trouble He was brought up by a drinking uncle, was highly educated, and graduated as an Episcopal clergyman, after a few years changed and became an editor, drank moderately, and then to great excess, following a sunstroke After this, distinct paroxysms of intoxication came on at intervals, sometimes they came on suddenly, at others they were preceded by a long prodroma of nervous disorder Sometimes these attacks are concealed, and he will go away and shut himself in a strange hotel and drink for a week or more, then return sober and weak

These drink paroxysms last from one to two weeks, and are marked by free intervals of five or six months During this interval he both writes and lectures, bitterly condemning the disease theory, and urging that all inebriates should be punished, and that the vice of inebriety deserves no sympathy, but must be met with severe repressive laws

His views are often so intemperate as to suggest a very close approach to insanity To his friends and readers, who do not know him as an inebriate, these theories are often quoted as an authority

Thus inebriety, as seen through the theory of moralists and speculative dogmas, is found to differ widely when studied practically at the bedside A noted temperance lecturer was very anxious to discuss with me the reality of vice, and a wicked, wilful propensity to drink in all cases that could be controlled It was agreed to test it clinically by a study of the first case we should meet on the street that was available The result of this experiment was the following, the lecturer making the first study separately and at his leisure, with these conclusions

B, 64 years old Has drank thirty years Began to drink while working for a circus, and through the influence of bad company Does not care for spirits, and can stop it of his own will power Never drinks except when in bad company If he had married a good wife and kept away from bad company, would have been sober Is sure it is a vice, and thinks it a wicked sin When recovering from intoxication has very clear notions of his sin and strong desires to be better, but later forgets it all and drinks again The lecturer conceives this to be a case of vice that the pledge and conversion only can remove

My study revealed this side of his history

A strong presumption existed that his parents were both insane and criminal He was brought up in an orphan asylum, and was a barkeeper and hostler in a hotel, up to an attack of brain fever, which came on after a fall He went with a circus, and drank to intoxication whenever he could get spirits Was in the army two years Had a succession of social disasters, and was sent to jail for drunkenness From this time his career was marked by steady degeneracy of both mind and body He was clearly incompetent to control himself, or abstain, and was fast merging on imbecility His views of his case were mere delusions which his whole life contradicted

In all probability the brain fever produced some permanent impairment of an already feeble brain power, and gave an inebriate form to an inherited diathesis

This was fostered by thirty years of more or less drinking, during which conditions of disease had begun that no art could reach, and no pledge or conversion would control

The sequel of this was a good illustration of what is seen all over the country every day This old man was taken into the church, signed the pledge, and claimed to be converted, also gave evidence of being a "shining light" The next day he relapsed and stole a large sum from his benefactor, who, with inconsistent charity, had him sent to jail

Thus, all over the country, theoretical notions of the vice and sin of inebriety result in the senseless efforts to cure inebriates by appeals to a diseased emotional nature

The energy and money spent in the gospel temperance work and other labors to pledge the victim to recover, is a sad commentary on the ignorance of its advocates

Practically it is a failure, and always will be, for the reason that it ignores the actual state of the inebriate, and assumes the presence of another condition which no study indicates

Some years ago I advised a lawyer, who was drinking to great excess, to go under medical treatment, and urged that he was positively diseased, and should act on this basis Some friends sneered at this notion, and urged him to trust in the pledge and conversion

The result of this is, that he is now serving out a life sentence for manslaughter committed while intoxicated The failure of the church and pledge only increased his malady, and literally precipitated him into incurable states

Had he recognized his physical condition, and used the means for recovery, no such result would have followed

Inebriety is a more positive disease than insanity, because the continuous use of alcohol is without motive or object, and contrary to every dictate of self-preservation

Inebriety is a more stupendous evil than insanity, more widespread and disastrous, and yet its study is in the hands of moralists and reformers

The legal treatment, by jails and fines, literally destroys the victims, precipitating them to lower levels and more incurable conditions

The only hope for the future is from a practical study by medical men, who have no other object except to find the facts and the laws which govern them

The excessive and poisonous use of alcohol by a vast number of persons in this country is most certainly a problem of absorbing interest, and cannot be solved by theory and speculation

Like cholera and yellow fever, it is no chance condition, but comes from some specific causes, and from the medical profession must come the practical investigations which will reveal these causes, and the means to remedy and neutralize them

MEDICAL PROGRESS.

ANATOMY AND PHYSIOLOGY

Dissociation of the Auricular and Ventricular Movements of the Heart — Prof A Chauveau reports, in the *Revue de Médecine*, a very unique and striking case It was that of a man, a patient in the service of Professor Boudet, who had a radial pulse of only twenty-one to twenty-four beats per minute Upon auscultation, and by means of sphygmographic tracings, it was found that, while the ventricles beat only twenty-one to twenty-four times per minute, the auricles pulsated sixty-six times These auricular pulsations were tolerably regular, but were perfectly independent of the ventricular rhythm, being sometimes pre-systolic, sometimes post-systolic

Professor Chauveau adds the result of his investigations as to the pathogeny of this condition By cutting one of the pneumogastric nerves in a horse, he obtained some dissociation in auricular and ventricular movements But by slightly stimulating by a galvanic current the left vagus, he obtained a sphygmographic tracing of dissociated rhythm which almost completely resembled that obtained from his patient The inference is that a slight irritation of the vagus is a cause of the dissociated movements The case throws light, therefore, upon the pathology of dissociated rhythm of other types than the unique one here described —*The Medical Record*, April 4, 1884

MATERIA MEDICA AND THERAPEUTICS

On the Internal Administration of Turpentine in Cutaneous Diseases —Dr H Radcliffe Crocker read a paper before the Hunterian Society, in which he spoke highly of the ordinary oil of turpentine, used internally in cutaneous diseases, and considers that all turpentines have a very similar action He gives the details of one case to illustrate the action of this drug in thirty other cases of psoriasis In a few the psoriasis has been completely removed, but in most, considerable improvement has been manifested up to a certain point, when, as in the selected case, some external treatment was required for the complete removal of the disease All the thirty cases were taken consecutively, without regard to the extent or duration of the disease, or to the general health In only two cases was it necessary to discontinue the drug on account of slight strangury, and in three others the dose had to be diminished on this account, one of these was a girl who could never retain her urine more than two hours In all these cases the dose was under twenty minims, and the irritation was not considerable, with the exception of one who did not attend for a fortnight, and kept on with the medicine in spite of the irritation, in this case there was bloody urine, which, however, stopped in a few days after the drug was discontinued In three the drug had to be discontinued on account of dyspepsia (which the turpentine aggravated), which led to its discontinuance in all cases wherever there were any symptoms of gastric irritations In several cases there was a decided increase of itching in the eruption at first, but with perseverance for a week or two longer this entirely ceased Besides the well known violet odor imparted to the urine, it was noticed that a copious deposit of urates occurred during the first few days of the treatment, but this soon passed off, and appeared to be entirely due to diminution in the quantity of water

Dr Crocker has used this drug to advantage in about a dozen cases of eczema, but in this disease would restrict its use to those cases in which no defect in the general health can be detected The cases in which turpentine is contra-indicated are Children under five years old, all who have unsound kidneys or irritable bladders, most cases in which dyspepsia is present, though in some instances it can be tolerated even then; and gouty subjects, whose powers of elimination are seldom good The physiological action in moderate doses is considered to be that of a stimulant of a powerful kind to the inhibitory reflex center, and to the vaso-motor center, thereby raising the blood pressure, and contracting the arterioles It therefore is not in any sense of the word a specific, and fails to remove thickening and other consequences of long-continued inflammation, which are best attacked by local measures

The mode of administration is For adults and children over ten years, 10 minims rubbed up with an ounce of mucilage, so as to form an emulsion This is given, directly after meals, three times a day, and the last dose should not be given within three hours of bedtime In two of his cases there was slight discomfort on micturition in the morning when the last dose was taken after supper, but none when the last dose was not later than six o'clock This is probably due to the proportion of turpentine in the contents of the bladder being much greater when it has been accumulating all night, while some of it is got rid of at the last micturition when the dose has been early in the evening Another means of avoiding irritation in the urinary organs is to make the patient drink barley water freely from the very commencement of the treatment, and the patient should always be impressed with the necessity of frequent diluent drinks In the case related the urine was reduced to 4 oz while taking 40 minim doses, but was immediately raised to the patient's usual quantity when a quart of barley water per diem was given In a few cases the drug was given in capsules, but the emulsion seems less liable to disagree, and but few patients, even among the children, made any serious objection on the score of the disagreeable taste If the improvement is only proceeding slowly or the condition is stationary, and the patient is tolerant of the drug, the dose is increased by 5 or 10 minims at a time up to 30 minims a day It is seldom necessary or desirable to go beyond this, though in three cases drachm doses were given without any ill effects; but the risk of albuminuria or even hæmaturia increases considerably after thirty-drop doses are reached, though, if the drug be stopped as soon as these symptoms appear, in two or three days the urine will have returned to its normal condition —*The Practitioner*, March, 1885

The Therapeutic Use of Sodium Nitrite — R M Simon, M B, publishes sixteen cases, five of aortic, five of mitral, and five of renal disease, and one an old man, æt 72, suffering from vertigo without organic disease, in which this drug was administered with marked benefit in all but two of the cases The result was most striking in a case of angina, but was almost equally so in each of the cases of heart disease, more especially those in which the aortic orifice was affected The dose given was one grain three or four times, and possibly, in any case of total or partial failure, it might have been wise to increase the dose, as, with the doubtful exception of one case of purging, no ill effects followed the use of the drug

In the discussion of the remedy Mr Simon refers to the observations made by Lauder Brunton in 1870, of Barth in 1879, and of Reichert and Weir Mitchell in 1880 Unfortunately, in Weir Mitchell s cases nitrite of potassium was used instead of nitrite of sodium, thus introducing a source of fallacy, as potash salts act powerfully on all muscular structures, including the heart Dr Hay published in 1882 the best and earliest paper on the use of nitrite of sodium in *angina pectoris* His observations were all made on a single case, and he was able to show that the nitrous acid was the active agent in all its compounds except in nitrite of amyl, where the ether has an additional and similar influence All the preparations of nitrous acid have in common the properties of dilating the smaller blood-vessels and lowering of the blood-tension Mr Simon used it freely in epilepsy, but without success In heart disease he ranks it with digitalis —*Birmingham Medical Review*, February, 1885

INUNCTION OF MERCURY IN TYPHOID FEVER —Liebermeister has shown the striking influence of calomel given internally in cutting short typhoid fever Dr Kalb, of Thalmässing, now reports his treatment of 100 cases by the inunction of mercury ointment (*Berliner Klin Wochenschrift*, No 3) One gramme is rubbed into the abdomen on the first day for fully half an hour, on the next day over one thigh (inner aspect), on the third day over the other thigh The same course is repeated during the three following days A few calomel and opium pills are given on the first day, and alcohol is given methodically On the eighth day, two days after completing the inunction, the temperature falls to normal, or very near it, and remains so, with very slight oscillations Not only did Dr Kalb find this method unfailing, but 80 per cent of the cases were perfectly free from fever within ten days from beginning the inunction Other patients in the same ward complained bitterly that they were not treated in the same manner The spleen remains enlarged for about a fortnight after the fall of temperature, and the strictest care must be taken to keep the patients under observation during this time, for fear of a relapse The treatment is only of value when adopted before the ninth or tenth day of illness, before roseola has appeared —*Lancet*, Jan 31, 1885

MEDICINE

CYSTINURIA —It has recently been pointed out by Lépine and Guerin (*Comptes Rendus*) that there exist in the urine two forms of sulphur, apart from that which appears in combination with bases as sulphuric acid, viz, one that is easily oxidized and a sulphur that is difficult to oxidize The former can be oxidized by means of chlorine or bromine, while the latter requires fusion with potassium nitrate and hydrochloric acid The greater portion of that difficult to oxidize is apparently derived from the bile by the reabsorption of taurocholic acid, but evidently not the whole of it, for when a dog with a complete biliary fistula was fed with bread and fat the sulphur oxidized with difficulty amounted to 30 per cent of the whole sulphur, and with horseflesh to 23 per cent Moreover, it is shown that sulphur difficult to oxidize is present in many pathological conditions in which there is reason to suppose that bile was reabsorbed It would have been a matter of interest if MM Lépine and Guérin had stated whether in these cases the amount of urea excreted was also diminished In cystinuria, in which a considerable amount of unoxidized sulphur is discharged as cystin, the urea is nearly invariably diminished, pointing to deficient oxidation, and as some disorder of the hepatic function is generally found to exist, it has been considered that the seat of the impaired metabolism was in the liver In fact, it has been stated that a small quantity of tannin is eliminated by the kidney in health (hence the trace of unoxidized sulphur originally discovered by Renalds in healthy urine), but that under certain conditions this is increased, and cystin is the result The observations of MM Lépine and Guérin, however, make it probable that we shall have to extend our hypothesis, and to conclude that mere increase of tannin does not lead directly to cystin, but to an increase merely of the unoxidized sulphur, and that some other condition is required to cause the appearance of cystin in the urine This condition will probably be found to exist in defective elimination by the kidneys In ordinary cases the tannin, whether in normal or excessive quantities, reaches the kidneys and undergoes transformation into unoxidized sulphur and urea If, however, there is disorder of the kidney function, the transformation is only incompletely carried out, so that the intermediate product, cystin, is the result This supposition is strengthened by the fact that cystinuria is frequently met with in patients whose kidneys after death have been found to have undergone extensive disorganization The therapeutic considerations to be drawn from these remarks are, that in cases where we may be led to suspect the presence of cystin in urine, and fail to find it, we should pursue our inquiries a little further, and endeavor to ascertain the amount of unoxidized sulphur eliminated by the kidneys If this should be increased, as these observations of Lepine and Guérin show it not infrequently to be, our treatment should obviously be directed to promoting general and local oxidation —*Lancet*, Feb 14, 1885

The Most Sensitive and Credible Tests for Albumen —Dr Henry B Millard, at the close of an article on this subject, draws the following conclusions

Nitric acid shows 1 part of albumen in 100,000 Heat shows 1 part in 100,000, but rather more clearly than nitric acid, and in examinations of urine I often find it to show minute quantities of albumen where nitric acid does not Tanret's test and my own test will show 1 part in 300,000, the latter test the more clearly, this precipitates fewer of the alkaloids than Tanret's

Nitric acid and heat show almost exactly the same reaction and percentage with artificial albumen and albuminous urine Tanret's test and my own show the reaction better in the urine than in the artificial preparation I think, for practical purposes and ordinary clinical use, we may show with ease, by nitric acid, 1 part in 100,000, heat, 1 part in 100,000, Tanret's test, 1 part in 200,000, the phenic-acetic acid and potash test, 1 part in 200,000, heat showing it more clearly than nitric acid, consequently being more sensitive, and my own test showing it more clearly than Tanret's

Heat, although somewhat more sensitive than nitric acid, is often quite unreliable from the turbidity produced by it with mucin, and this particularly after acetic acid has been added

Finally, there are cases in which no single reagent is sufficient, and in which, in order to determine the presence of albumen, the employment of several is indispensable —*The Medical Record*, April 4, 1885

SURGERY

A Curious Case of Accidental Parasite in the Throat —Surgeon S J Rennie, serving in India, gives the following curious case T Gunner, æt 20, was admitted to the Station Hospital, Cawnpore, on October 23, suffering from the ordinary symptoms of relaxed sore throat accompanied by slight fever The redness was most intense on the posterior wall of the pharynx, but the arch of the soft palate, uvula, and tonsils were also implicated There was no ulceration With the use of gargles and nitrate of silver locally the throat was somewhat relieved On On October 25, 1 p m, he had coughed up three maggots, which on examination proved to be the larvæ of the common fly A deep rugged tract, about one-half an inch wide and two inches long, was now seen in the posterior wall of the pharynx, extending downwards from opposite the arch of the soft palate, reaching as low as the junction of the pharynx and œsophagus, opposite the upper arch of the larynx A mass of maggots was seen freely moving in the cavity The tract was swabbed out with eight grains of calomel on a camel's-hair brush, and in two hours the patient had expectorated over twenty, each about half an inch in length and two lines in circumference Several more were got out by the aid of a syringe and solution of Condy He was discharged to duty on November 12 Mr Rennie's theory is that the man had been lying asleep, probably drunk, with his mouth open, and the fly had somehow got in and laid the eggs, probably depositing them high up out of sight, and there the larvæ, feeding gradually downwards, set up the inflammatory symptoms, till at last they suddenly burst through the mucous membrane —*Indian Med Jour*, January, 1885

Transmission of Syphilis by the Hebraic Rite of Circumcision —Dr A Kédotoff cites three cases of this character, in the first two of which mother and child both suffered from the infection This operation has been so frequently described as to make it unnecessary to repeat it here, except to say that after the foreskin has been removed, the wound is sucked by an assistant It is certain that if the psylle be syphilitic, the chances are very great for the contamination of the child, recognizing the frequency of buccal chancres

In the three cases cited there was no question of hereditary syphilis, because in the first two the fathers were carefully examined and showed no traces of the disease, and the other children were exempt In the first two there were traces of the primary sore on the penis If the hereditary influence be admitted, it is difficult to understand how the children could so infect their mothers The operator being examined was found to be perfectly healthy The psylle (or the assistant whose business it was to suck the wounds) showed no blotches or cicatrices upon his body The cervical, epitroclear, and inguinal glands were slightly tumefied No trace of syphilis on the genital organs or about the anus But on the mucous membrane of the lower lip there was a curvilinear cicatrix, passing to the gingival ridge, where there was a pearly spot, which was covered by thickened, whitish, opaline epithelium On the mucous membrane of the upper lip there was a yellowish fissure, and on the gum opposite to it a little greyish spot, as if covered with false membrane, and which looked like a mucous patch the tonsils were slightly injected The psylle denied that he had had syphilis, and explained the presence of the cicatrix on the lip as due to a fall in childhood One suspicious circumstance connected with the cases was, that the operator presented himself for examination without hesitation, while the psylle refused to come until brought by the police A month later he was examined by two other physicians, who confirmed the presence of these symptoms, but were doubtful as to their origin Dr Kedotoff considers that the psylle contracted the disease less than five years before, possibly in another way than by coitus, and that the affection showed itself in a slight, benign form, which manifested itself from time to time as mucous patches — the form most apt to transmit infection Moreover, it is this form which most frequently escapes attention *Ann de Dermatol et de Syphil*, Vol V, Nos 9, 10

THE
Journal of American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, APRIL 18, 1885

PROPOSED AMENDMENTS TO THE CONSTITUTION AND BY-LAWS OF THE AMERICAN MEDICAL ASSOCIATION

At the last annual meeting of the Association, one amendment to that part of the constitution relating to the conditions of eligibility for membership was proposed by Dr C H Von Klein, of Dayton, Ohio, and will be before the Association for final action at the coming meeting in New Orleans The proposed amendment is in the following form

"1 No person who shall hereafter graduate from a medical college where literary education is not a prerequisite to such graduation, shall be eligible to be a delegate to the American Medical Association

"2 All delegates to this Association, as a part of their credentials, shall present certificates from the County, District, or State Associations they represent, showing from what medical college and when graduated, but this provision shall not apply to delegates from the Army and Navy"

The object or motive that prompted the offering of this amendment is a good one, namely, the enforcement of a higher standard of general education of students before entering upon the study of medicine But the words "literary education" used in the first part of the proposed amendment are too indefinite in meaning to be of any practical value There should be some more definite standard of literary attainments than is indicated by the word "education" At least the chief branches of knowledge required to constitute a minimum standard of a *literary education* should be enumerated Otherwise there will be as many different constructions as there are medical colleges in this country Again, why make the requirement a prerequisite to graduation, which comes at the end of the medical college course, when it should be a prerequisite to the matriculation or entry upon the first medical college term?

At the same annual meeting of the Association, Dr Foster Pratt, of Michigan, offered the following amendment to the by-laws "Each Section shall nominate its Chairman and Secretary—all other nominations to be made as now, by the nominating committee"

The object to be accomplished by this amendment is to restore to the members of each section the right to choose their own officers, as was the practice for several years after the sections were instituted It is claimed that the present method of nominating the officers of the sections by the nominating committee has often resulted in the selection of men for chairmen of sections in which they had previously done little or no work, and that it held out stronger inducements for those who are specially ambitious for official positions, to "log-roll" in the nominating committee, than to earn their promotion by good work in some one of the sections It is further claimed that the members of each section are much better qualified to select good officers than the members of the general nominating committee can be

Experience has pretty fully demonstrated the correctness of these claims, and consequently the amendment when put in proper form should be adopted We say, when put in proper form, because the amendment before receiving a final vote, should specify the day during the progress of each annual meeting, when each section shall nominate or elect their Chairman and Secretary for the ensuing year, their term of office to commence at the close of the annual meeting during which they are elected

An amendment of the by-laws, providing for the establishment of sections, was proposed by Dr Carl Seiler at the last meeting, and is ready for final disposition at the coming meeting It consists of a proposition to divide the present section of ophthalmology, otology and laryngology, into two sections, one of ophthalmology, and another embracing otology, laryngology and rhinology The proposition to amend should be carefully considered by those engaged in the several special departments named

Still another amendment to the by laws is pending It was first offered as a resolution by Dr Jerome Cochran, of Alabama, and so appears in the published minutes of the last meeting But objection being made to its immediate adoption, the mover asked that it be laid on the table as a proposed amendment to the by-laws, which was done The proposition as presented by Dr Cochran is as follows

Resolved, That it is the sense of this Association that it is not expedient for the nominating committee to nominate any of its own members for any of the offices of the Association

Before calling for a final vote on this proposition, its author should so alter its phraseology as to make it an addition to the present section, defining the powers and duties of the nominating committee

Members of the Association should also give the merits and demerits of the proposition due consideration While it is doubtless true that there has been every year a scramble on the part of ambitious men to get on the nominating committee, on account of the facilities afforded for making selfish combinations, and while it does not look well for a committee to recommend many of its own members for official positions, yet there are some valid objections to making mere membership of the nominating committee a disqualification for holding any other office during the year It would doubtless lessen the willingness of many to serve on the nominating committee, and at the same time enable watchful and designing parties to get unsuspecting but most worthy members appointed on the nominating committee, simply to defeat their nomination to official positions for which they might be eminently well qualified We suggest whether it would not be practicable to institute some better and much more reliable mode of selecting the members of the nominating committee than that pursued at present There is certainly room for improvement in this direction

THE MEDICAL EXAMINING BOARD OF VIRGINIA

In another column we give the proceedings of the first business session of the Medical Examining Board of Virginia, together with the list of questions asked the twenty-seven candidates who presented themselves for examination That the Board is already in good working order is shown bv *first*, the questions asked, and, *secondly*, by the fact that seven candidates were rejected out of the twenty-seven, it being required that seventy-five per cent of the questions should be correctly answered It is evident that this Board has set to work in earnest, and the people and profession of the state are to be congratulated on having a Board which shows evidence of doing thorough work

There is still much to be done, however, in this work in Virginia The state needs protection from its horde of quacks and those who are practising without diplomas The Board of Examiners, and the profession generally, should use every honorable method for obtaining legislation on these points

UNSANITARY TOBACCO-FACTORIES IN OHIO

The *Cincinnati Lancet and Clinic*, of April 11, contains an unsigned article on this subject, which claims that physical wreck and moral and mental ruin are produced among the employés in the tobacco-factories in that state If all that is stated in this article be true, there is a large field of work in Ohio (and presumably in other states) for the legislature and for boards of health

The employment of children in factories must be regarded as necessarily an evil, though by no means a necessary evil The article in question says that there is a law on the statute books of Ohio which would lead one to suppose that the education of children was compulsory in that state, but that it is never enforced because it needs a cultivated public sentiment behind it to give it a moral force and effect It needs more, it needs an efficient corps of state officers, especially a state board of health, which, to be efficient, should be indorsed by an enlightened public sentiment

The article goes on to state that one of the apparently most prosperous towns in southern Ohio is beginning to feel the evil effects of a large number of girls and boys together in two immense tobacco-factories, in which they are at work from 7 A M until 6 P M In one of these factories, which employs about four hundred and fifty persons, there are two hundred girls and boys, the greater number of whom are under fourteen years of age The proprietor, who a few years ago was a poor man, is now worth half a million, but while he has grown rich, his employés have become degraded morally and physically, they have grown poor in mind and body

In one room in one of these factories are one hundred and forty or fifty females, nine-tenths of whom are under seventeen years of age This room has a nine foot ceiling and is not over thirty-five feet square "Every window on this floor is closed to prevent the moisture in the tobacco from drying too fast, as therein lies a large percentage of the profits It is easily seen that these people can get only about seventy cubic feet of air each during about ten hours, while it is known they *require* not less than three times that amount This town in which these sins against health and common sense and against humanity are committed, is said to furnish more than half the cases of crime and lunacy for the courts of the county in which it is situated, and this with a population of about six thousand inhabitants None of the children who work in the factories get any schooling during the year They work the year round in the factory, or until they give out from sheer exhaustion or nervous prostration"

"The physicians of the place are frequently called upon by females working in the tobacco establishments, to be treated for difficult menstruation, general nervous prostration, and anæmia, which constantly affect them During the past year there have been over fifty cases of that kind in this little town of six thousand inhabitants Several deaths have occurred, produced by nervous diseases contracted in the tobacco factories The children belong to poor parents, who move to the town to get employment for them, while they do little or nothing, and compel the children to earn a livelihood for the whole family"

The article also states that connected with these factories are cess pools, which are made for the convenience of the employés The water is obtained by driven wells, but in time it necessarily becomes contaminated by the saturation of the soil with excrementitious matter, and a new cess-pool has to be dug every few months

"There ought to be a state board of health, composed of physicians of known and acknowledged ability, to cooperate with county and municipal boards of health, that the authorities might reach such cases The necessity exists for the state to interfere, and see to the proper sanitation and improved ventilation of these factories, where so many people are daily exposed to the poisonous and infected atmosphere of close rooms There is no question that the bad air and evil communications in such establishments tend to engender brutal instincts, and temporary, if not permanent, insanity is often caused by constant exposure for months to the same vitiated atmosphere"

The Ohio legislature is still in session, and there is no more fitting time to urge upon it the appointment of an *efficient* state board of health The people of a state which allows such outrages on common sense, humanity, and the laws of health, cannot think to escape pestilence How would this town fare should cholera invade the country during the coming summer? Every physician in the state should see to it that the greatest pressure be brought to bear upon their legislators to appoint a state board of health, and that the proper funds be granted for the carrying out of sanitary measures

OUR BRITISH BRETHREN

Our British *confrères* seem to have a trifle of unrest in their daily lives, such matters as which bell to ring, what to do with their hats, how many fingers to use in shaking hands, where to send their boys to school, and other living questions of the day seem to give them a world of trouble, Any one reading the correspondence columns of the *Lancet*, *British Medical Journal*, or *Medical Times and Gazette* would scarcely infer that they regard life as "One grand, sweet song," or that the greater number of them are entirely free from dyspeptic attacks There is a childlike freshness and simplicity about some of the questions asked, and an evident and earnest thirst for knowledge to be found in these columns that is most refreshing to slow Americans

A few months ago an animated discussion was kept up for some time as to whether Coleridge drank his laudanum diluted with wine, or whether the wine was the diluted element, the logomachists entirely forgetting the main question at issue—whether the wine was port or claret Is it too much to hope that this question will be settled definitely at the earliest possible moment—say sixty days, without grace? The spelling of the word "cocaine" seems to have been the innocent cause of much discussion also, the ink on Koller's manuscript had scarcely dried, scarcely even the bandage removed from the eye of his first patient, before communications began to pour into London suggesting that the drug should be known as cucain and cucaine Curiously enough, no one seems to have thought of "Kuka'hin," and we have hesitated even to hint at this spelling for fear it may at once find favor at Apothecaries' Hall

A correspondent of one of the above-named periodicals wishes to know "What is considered about the proper time for a doctor's visit to be?" Why not 4 A M? This would probably make a decided impression upon the family as to the extent of his practice The question naturally suggests that a busy practitioner can make all of his calls at the same hour But it is possible that the correspondent wishes to know "What is considered about the proper length for a doctor's visit to be?" though his question is not so stated After giving the matter careful consideration, we would advise anything from five minutes to two hours and a half—depending altogether on the amount of gossip on draught at the patient's house Another wishes to dress all medical men in a distinctive garb, so that the public may recognize them afar off—and avoid them He does not recommend any particular style to be adopted, possibly a club-foot shoe, a hypodermic syringe, and a Sim's speculum would be as distinctive and striking as any other, and very convenient in emergencies

A (presumed) Teetotaler, M C Q, R S V P, complains that the "Habitual Drunkard's Act" is too liberal This is one of the disadvantages of living in a civilized country, habitual drunkards are always very libèral with their performances But if the gentlemen given to habitual intoxication, in the British isles, are capable of performing any acts which are unknown to their American prototypes, we hope that Congress will at once place them on the "Chinese list" as high-tariff luxuries If one may judge by some of these letters, specialism seems to be running riot in the United Kingdom An ethical correspondent states that he was called to attend one of the pleuræ of a lady who was also suffering from joint disease Not being acquainted, or on good terms, with the physician to the joint (we forget which), he declined to have anything to do with the articular system of the patient If that patient had been so unfortunate as to have double pleurisy and general articular rheumatism, with a physician to each pleura and a surgeon to each joint, we may well tremble for the subsequent results If things go on at this rate, it will not be very long before we will read on the title-page of some British surgeon's new book that, in addition to his having appropriated all the consonants in the alphabet for titles, he is Surgeon in Ordinary to the Umbilicus of His Grace the Duke of ——

A searcher after truth (and a cure for sneezing) is told, after much tribulation and delay, that the patient should be made to go down stairs head first We have tried this method of descending stairs, though not for the relief of continued sternutation, but there are objections to it It is not dignified, and is somewhat prejudicial to wearing apparel These objections might be removed, however, by taking the remedy in one's own private apartment, *déshabille*, on a step-ladder Still another, with great gravity and intrepidity, yet without circumlocution, lifts the veil of horrors and propounds the momentous query, "Should salts be given in a beer-mug or a teacup?" as though he supposed that the editor of a great medical journal was in the habit of taking salts Here in America we always give salts in water, but there is an impression in the old country that water should not be introduced into the stomach, it is "common" Seriously, it should be entirely unnecessary to say that etiquette strictly requires that salts be always administered to *titled* persons in a shaving cup, to gentlemen and their families in a bottle, and to common folk in anything that comes handy It is well for young English physicians who intend locating "in respectable neighborhoods" (where there are three bells on the doors) to know these facts, and carry an assortment of cups in their pocket-cases It is a matter of surprise that such every-day facts are not drilled into the students in the schools It will probably not be very long before another anxious inquirer will ask whether a pill should be given in a soup ladle or a pair of tongs

Just at present the English weeklies are suffering from an alarming epidemic of letters on "The Title of Doctor" The university men—those who have a degree in arts and the degree of M D from a university (or *an* university, as they say)—are considerably disturbed that anyone else should be allowed to use the title of doctor And it does seem rather strange that men who can legally follow up their names with a large number of consonants, varying from one third to three-fourths of those in the alphabet, and with all the possible combinations and permutations, should also yearn to add two more Are medical talent and knowledge gauged over there by the extent to which the alphabet is depleted? It certainly seems that many talents are thus gauged in Great Britain Not very long ago a London paper contained the following advertisement "Wanted, a gentleman, an university graduate, to milk goats, must have had some experience" *Will the British Medical* Association allow the suggestion, that it at once adopt the Russian alphabet, which contains thirty-six letters—almost all consonants—from which to select more and much-needed titles?

THE OPERATIVE MEASURES FOR PYLORIC STENOSIS

Dr Randolph Winslow, of Baltimore, contributes a very interesting article on this subject to the April number of the *American Journal of the Medical Sciences* It is only within the last six years that surgeons have awakened to the fact that there is any operative measure for this affection, either palliative or curative No special difficulty attends the diagnosis of pyloric stenosis, even without the use of the gastroscope of Mikulicz With internal medication the prognosis is necessarily hopeless, and any measure for the relief must be surgical

Six different operations have been recommended and practised for the relief of stenosis of the pyloric orifice 1, pylorectomy, 2, gastro-enterostomy, 3 gastrectomy, 4, gastrostomy, 5, duodenostomy, 6, digital divulsion of the pylorus, Loreta's operation

The first resection of the pylorus was performed by Pean, in 1879, with a fatal result from inanition It was next performed by Rydygier in the following year, with a like result The third operation, and the first successful one, was done by Billroth in November, 1881, but the patient died four months afterwards in consequence of the recurrence of the colloid carcinoma Billroth then had two fatal cases Up to this time he has operated eleven times, with six recoveries The operation has been performed eighteen times in Germany, with six recoveries Eighteen operations have been performed in Austria, with eight recoveries Holland has had two cases, with one recovery, Great Britain three cases, all fatal Switzerland has the same average as Germany, but with only one-third the number of operations Dr Winslow's table shows that the United States, Great Britain and Russia, France, Brazil, and Norway give 100 per cent of fatal cases Considering the great mortality of the operation, and the almost certainty of recurrence, the author of the paper in question holds that resection of the cancerous pylorus should only be performed under very exceptional circumstances Rydygier and von Hacker also give uncontrollable hemorrhage from ulcer and perforation as indications for the operation, but it is easily seen that neither can be given as indications It is usually impossible to say whether the hemorrhage is caused by ulcer, cancer, simple inflammation, or hepatic disease Perforation from an ulcer would certainly be an indication for laparotomy, if the condition were recognized or suspected, but it would be better to excise the ulcer itself, or to invert the edges and suture them

Gastro-enterostomy appears to offer much better results than pylorectomy Of the thirteen cases reported, only three have died of collapse, while of the first thirteen pylorectomies eight died from this cause The statistics of the operation show thus far only thirty per cent of recoveries, but it is extremely probable that the percentage would have been much better had the operation been performed earlier, and before the condition of the patients became so desperate We may pass over the consideration of gastrectomy and gastrostomy with the remark that they offer far less good results than gastro enterostomy

Three cases of duodenostomy have been performed, with three fatal results There seems to be no field for the operation, gastro-enterostomy is essentially better in cases of malignant disease, and Loreta's operation fulfils every indication for which duodenostomy could be performed in non-malignant cases

Digital divulsion of the pylorus, for non-malignant stricture of the pyloric orifice, was devised and performed by Loreta, of Bologna, in September, 1882 Up to July, 1883, he had performed the operation four times, with one fatal result The operation has also been performed by Giommi, with death in twelve hours, and by Frattini, the last report of this case being that the patient was doing well on the third day We are of the opinion that there are other cases of this operation as Dr Winslow thinks It has not yet been performed outside of Italy, but it seems that in time it must become the operation for all cases of non-malignant stricture of the pylorus A careful review of the statistics of operations for malignant and non-malignant disease of the pylorus, can scarcely fail to impress one with the idea that the sooner gastro-enterostomy becomes the sole operation for the first, and Loreta's operation for the second, just so soon will the prognosis of these become markedly better, and the present fearful mortality be greatly diminished

There is, furthermore, another factor which must be taken into consideration as regards the prognosis, the time at which the operations are performed It is apparent that whether the patient have malignant or non-malignant disease, his chances of recovery are immensely greater when an early operation is performed There was a time when it was thought best to defer operation upon the cancerous mamma as long as possible, but Gross has shown that there can be no greater error than this We have no doubt that the same opinion will ere long prevail in regard to operations on the stomach, and to malignant disease in other localities, however difficult of access they may be

In the same number of the *American Journal of the Medical Sciences* is a report of a case of partial pylorectomy for stenosis, by Dr J M Spear, of Maryland It was a typical case for Loreta's operation The result was fatal

DESTRUCTION BY FIRE

The fire that occurred on Wabash avenue on the 14th inst included in its destructive progress the printing establishment in which the JOURNAL has been printed At the time the fire occurred nearly all the matter for the present number of the JOURNAL was in type, and the first galley proofs were being corrected The smoke and flames came upon the workmen so rapidly that very little property of any kind was saved The type was melted, and both manuscript and galley proofs were destroyed, thus obliterating a large part of what had been prepared for this issue Before twenty-four hours had elapsed, the printers had made arrangements with another printing house to resume our work, and with the aid of our very efficient assistant, we, by substitution and reproduction, furnished the necessary matter as fast as needed, and had the number completed and mailed to its many readers within forty-eight hours of its usual date The proceedings of a meeting of the Obstetrical Society of Philadelphia, a letter from a correspondent in the same city, and two letters from our correspondent in Berlin, were among the matters entirely destroyed Fortunately, the JOURNAL had no property stored in the printing house except eight or ten dollars' worth of stereotype plates of advertisements These were melted with the type

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY

Thirty-fifth Annual Meeting, April 6, 1885

THE PRESIDENT, D A K STEELE, in THE CHAIR

After the minutes of the previous meeting were read, and were approved without correction, and the election of new members and the remainder of the usual routine had been disposed of, the auditing committee submitted its report, which showed that a number of statements regarding the treasurer's last annual report might be construed as criticisms On the other hand, they were suggestions to show the need of keeping up a pretty strict observance of the regulations in the by-laws concerning the prepayment of initiation fees and proceedings against delinquents

The expenditures of the treasurer were accompanied by vouchers, except the items of postage ($12 25), postage for secretary and express package ($7 50), and collector's fees of $6 30 The footings and balance were correct

The committee also examined the first annual report of the committee on library, and found that every item of expenditure was accompanied by voucher, except $2 for printing and $31 40 for postage The sums total and credit balance were correct

(Signed) CURTIS T FENN,
LISTON H MONTGOMERY,
Auditing Committee

Upon motion of Dr E J Doering, the report of the auditing committee was accepted, and the committee was discharged

SECRETARY'S ANNUAL REPORT,

Chicago Medical Society, read at the thirty-fifth annual meeting, April 6, 1885 Grand Pacific Hotel, by LISTON H MONTGOMERY

MR PRESIDENT AND MEMBERS OF THE SOCIETY,—The following extracts we herewith present to our readers It is but fair to state that it affords me much pleasure to present a most favorable report of the proceedings of this the closing of the thirty-fourth year of our association, a report which I am sure those who have watched the steps of progress we have made within the past several years will be equally as well pleased and gratified at hearing, as it is for me to announce, and which, I trust, will commend itself to your kind favor The *resumé* is as follows

During the year twenty regular meetings were held The national conventions with which this city was honored during the months of June and July last prevented our holding more than one session in each of those months Fifty eight essays, original contributions, and reports of cases have been read, presented by forty four members, besides a number of pathological specimens and instruments that have been exhibited Six hundred and forty-eight members and 111 guests have attended these meetings, being in all 759 physicians, compared to 638, the number of physicians who met with us during the year previously The largest number of members in attendance was 91 The smallest number was 17 The average attendance of members at each meeting was $32\frac{8}{20}$, of guests, $5\frac{11}{20}$, or a total average of $37\frac{19}{20}$ compared to $31\frac{8}{20}$, the average attendance the year previously During the year we have received into active membership 51 new members, compared to 35, the number admitted in the years 1883–84 The membership one year ago consisted of 242 names, an increase of 51 during the year would augment the total membership to 293 Of this number, however, two of the fellows have "gone to that bourne whence no traveller returns," one of whom was present at the annual meeting last year Four have resigned, caused by removal from the city and other causes, and a definite number whose names were directed by the treasurer to be dropped from the list This course your secretary regrets very much indeed to have been obliged to follow, and could not otherwise have done so but for the plain duty which made it necessary Besides these there are four others whose whereabouts are unknown, which will leave an accurate and correct list of 270 that now constitute the revised membership of this society

Of this number 260 are fellows of this society The remaining number, ten, are ladies, some of whom have honored this meeting by their presence here to-night

Regarding the biography of the various members, much of interest could be said in this report, but your curiosity will be fully satisfied when I mention that 214 are married and fifty six are single, and quite nearly 150 are professors or instructors in the various medical colleges and hospitals throughout the city

That you may form some idea of the amount of work performed by your secretary during the past year, I will state that in round numbers at least 4,275 postal card announcements have been superscribed for these meetings, 120 pages of records have been transcribed and indexed in this book [which was then shown], making it a valuable souvenir, besides a large number of correspondents that required attention And this leads me to mention what is perhaps most appreciated, namely, the almost verbatim and faithful report of our proceedings, pertaining more particularly to the essays and discussions, abstracts of which have been published in about twenty-five of our home leading medical journals, furnished at time of adjournment from elaborate notes taken at time of debate [The remainder of the report related to details of local interest chiefly —Ed]

THE ANNUAL REPORT OF THE TREASURER, Dr E F Ingals, was then read, which showed a balance in the treasury up to noon of to-day of $581 94

Upon motion the treasurer's report was received

The second annual report of the Committee on Library was submitted, of which the following gist of it has been taken, showing its financial footing

Cash on hand at the beginning of the year	$206 50	
Cash donated by physicians	238 00	
		$444 50
Expended in the operations of the committee,		310 12
Balance		$134 38

During the year the following donations of books and journals have been received

From Dr A R Jackson, 22 volumes
From Dr Edmund Andrews, 5 volumes
From Dr T S Hoyne, 3 volumes
From Dr J S Lane, 17 volumes
From Dr A H Foster, 5 volumes
From Dr D A Colton, 1 volume
From Dr Ludlam, a large collection of British journals now on the way, but not yet arrived

Honorable mention was made by the committee, stating that the committee of arrangements of the Illinois State Medical Society for the meeting held in Chicago in May, 1884, had from the surplus funds in their hands purchased and placed in the Public Library a complete set of the *American Journal of the Medical Sciences*, consisting of 113 volumes, also a set of proceedings of the International Medical Congress, London, 1881, consisting of four volumes, both of which are regarded as valuable accessions to the collection already made

The report closed by recommending that $450 be appropriated from the funds of the society to facilitate the committee's plans for the coming year

(Signed) E Andrews,
F C Hotz,
D W Graham,
Library Committee

The report was accepted and adopted

Dr R E Starkweather, on behalf of the committee on national sanitation, submitted a report which was well received He offered the following resolutions, which were adopted unanimously

Resolved, The Chicago Medical Society approves of the action lately taken (March 16, 1885) by the executive committee of the Sanitary Council of the Mississippi Valley in its petition to the President of the United States requesting him to immediately convene the National Board of Health, and to authorize it to use so much of the epidemic contingent fund placed in his hands by congress as may be necessary for preparing and promptly enforcing a vigorous system of preventive measures in coöperation with and in aid of, state and local health organizations, with special reference to Asiatic cholera

Resolved, That the secretary of this society be, and hereby is directed to communicate a copy of these resolutions without delay through the proper channels to the

President of the United States and to the secretary of the Sanitary Council of the Mississippi Valley

Dr A H Tagert, in behalf of the committee on nominations, presented a list of names which, according to the motion previously made at last meeting, may be voted for as officers for the coming year

Upon motion, duly seconded, other nominations were in order, which finally resulted in the following gentlemen being elected

OFFICERS FOR THE ENSUING YEAR

Charles T Parkes, M D, President
Charles W Purdy, M D, 1st Vice-President
James H Etheridge, M D, 2d Vice-President
Liston H Montgomery, M D, Secretary
Harold N Moyer, M D, Treasurer

Drs G C Paoli, E F Ingals, and D A K Steele were appointed the Committee on Membership and Miscellaneous Business

Dr F C Hotz was reelected to the Committee on Library as his own successor

The following gentlemen were elected

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Dr A Reeves Jackson, Dr George W Webster, Dr Wm P Verity, Dr Henry J Reynolds, Dr H T Byford, Dr E J Doering, Dr J E Walton, Dr Edwin Powell, Dr A E Baldwin, Dr W W Allport, Dr George H Chapman, Dr F E Waxham, Dr A Goldspoon, Dr W W Jaggard, Dr Charles T Parkes, Dr Liston H Montgomery, Dr D A K Steele, Dr G C Paoli, Dr L L McArthur, Dr A H Tagert, Dr J H Etheridge, Dr R E Starkweather, Dr D R Brower, Dr J H Plecker, Dr D T Nelson, Dr Wm E Clarke, and Dr C W Earle

President Steele, before retiring from the chair, delivered an excellent address, but our space will not admit of his remarks *in extenso*

STATE MEDICINE

THE MEDICAL EXAMINING BOARD OF VIRGINIA

The State Board of Medical Examiners of Virginia held its first meeting (except one on November 15, 1884, for the purpose of organization) on April 8 and 9, 1885

The Board is composed of three members from each of the ten congressional districts in the state, and two from the state at large

Applicants for license to practise medicine in Virginia who had never been licensed *in this state* prior to January 1, 1885, are required to pass a satisfactory examination before either the Board in session, or any three individual members of the Board whom the applicant may select If he applies to the Board in session, he has to stand one examination on each of the following branches Chemistry, anatomy, physiology, hygiene, materia medica and therapeutics, obstetrics, practice of medicine, and surgery If, however, he applies to three individual members of the Board, he is required to stand a separate and distinct examination on *each* branch before *each* of the three examiners Graduates and non-graduates are subjected to precisely the same examination

Prior to the meeting of the Board on April 8, two candidates for practice had applied to three individual members of the Board for examination One of these passed a satisfactory examination, the other was rejected

At the meeting of the Board on April 8, there were twenty-five applicants, of this number, all but one were graduates of respectable medical colleges Of the twenty-five applicants, six were rejected The law requires that all rejected applicants shall wait three months before they can apply for another examination

The Board is divided into eight committees, of four members each, on the different branches on which examinations are held Each committee prepares the questions, and values the answers on its special branch, and when all the papers are handed in, the president and secretary add up the figures If an applicant answers three fourths of the questions satisfactorily, and does not fall very much below on any subject, he is furnished with a certificate to that effect, which enables him to procure a license

The answers to all questions are in writing, but any examiner is at liberty to ask any questions he may choose, and in any way he may think best, in order to satisfy himself of an applicant's knowledge

The following questions were submitted to the applicants at the recent examination on April 8th and 9th

Chemistry —1 Give the process of the reduction of aluminium, its specific gravity, its point of fusion, its solvents and its physical properties Name the medicinal salts and their therapeutic uses 2 Give the process for the manufacture of sulphuric acid from the bisulphuret of iron, and give the symbols for Nordhausen and for anhydrous sulphuric acid 3 Give the process for the reduction of iron, the difference between cast iron, wrought iron, and steel, and the two most delicate tests for the salts of iron 4 Take the stomach of a man supposed to have been poisoned with strychnia carbolic acid, oxalic acid, or arsenic, and give the whole process for testing for each of these substances 5 Test some well water for the albuminoids, chlorides, sulphates, for iron, lime, soda, potash, and lead What would a large quantity of chlorine probably indicate? 6 Give the antidotes for the salts of lead, copper, zinc, and antimony, and the mode of preparing each of these antidotes

Anatomy —1 General composition, structure and mode of nutrition of bone, classification of bones and examples of each kind 2 Describe the hip, elbow, and occipito-axoid joints 3 Anterior abdominal muscles and relations of the hernial rings 4 Locate and describe the valves of the heart, and give outlines of the portal circulation 5 Subdivisions and relations of the different parts of the alimentary canal 6 General and descriptive anatomy of the kidney 7 Cranial nerves, number, mode of exit, and function 8 Membranes of the brain and cord, number and relations of the same

Hygiene—1 Name some of the diseases preventable by sanitary legislation, and other diseases which are lessened in violence 2 Name the different modes of disinfecting bedding, buildings, and cisterns, and name the best disinfectants in use 3 What are the effects of impure water and of impure meat taken into the stomach, and how manifested? 4 What are the effects of alcohol at different ages of life, as a beverage in health and in disease?

Physiology—1 Describe the various secretions concerned in digestion, their source, and what elements of food each digests 2 What nerves are concerned in the contraction of the iris 3 State the quantity of urea excreted in twenty-four hours, and the sources from which it is derived 4 Describe the nerves in their distribution to the recti and oblique muscles of the eye 5 What are the functions of the red and white corpuscles of the blood, also what length of time is required for the blood to make entire circuit of the body? 6 What are the physiological factors in the production of heat in the human body, and from what points is it mainly eliminated? 7 State the function of the grey and white matter of the spinal cord, the course of sensory and motor impressions, and also the centres therein 8 What are the functions of the cerebellum?

Materia Medica and Therapeutics—1 Give origin, uses and different preparations of ipecac 2 Give origin, uses, and antidotes of opium 3 Give antidotes for arsenic, strychnia, and lead poisoning 4 What are counter-irritants, and their therapeutic uses? 5 Give doses of the different tinctures of aconite, and tincture of veratrum viride, with common name and habitat of last drug 6 Describe the most important preparations of mercury, with the dose of each 7 What is the most important therapeutical application of mercury? 8 What is massage? State its therapeutic applications 9 Give the dose of infusion of digitalis, liquor potassæ, arsenitis, dilute hydrocyanic acid, oleum tiglii 10 Give rate of dosage for children 11 Ergot, its preparations, and their uses and doses 12 Origin and uses of atropin 13 Give origin and uses of salicin 14 Digitalis, its habitat, effects on system, and dose of tincture 15 Give formal prescription for castor oil emulsion

Obstetrics—1 What is the period of gestation, and how calculated? 2 What is natural labor, its usual duration and stages? and what the duties of a physician when called to a supposed case of labor? 3 What is placenta prævia? how determined, and how treated? 4 What is post-partum hemorrhage, its causes and treatment? 5 At what period of labor, and in what class of cases, should ergot be administered? 6 In threatened abortion, with hemorrhage, what should be done?

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BOOK REVIEWS.

THE ANNUAL AND SEASONAL CLIMATIC MAPS OF THE UNITED STATES By CHARLES DENISON, A M, M D, Professor of Diseases of the Chest and of Climatology, Medical Department of the University of Denver Rand, McNally & Co, Chicago, Illinois

The number of people who are annually borne home in their coffins from the so-called "Health Resorts," is a solemn and silent testimonial to the ignorance of the greater number of our physicians as to the climate of various portions of their own country, and the number of foreigners who die at these places shows that our *confreres* across the water know even less than we do of this important subject Patients are often told to go to Cuba, the Adirondacks, Florida, or Colorado, who would have done equally well in going to Panama, New Guinea, or the northern part of Greenland, and one can but think that they would have been sent to one of these localities had the physician not thought of one of the other places first To tell a patient to go to a certain "Health Resort," is to give him a prescription, a mistake in a prescription for a bottle of medicine may be remedied before the patient has taken sufficient to do harm to himself, but a mistake in a health resort is a much more serious matter Shot-gun prescriptions for health resorts should no more be tolerated at the present day than those for medicine from the drug store

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President of the United States and to the secretary of the Sanitary Council of the Mississippi Valley

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It is scarcely possible to imagine any means of obtaining information concerning the climate of any portion of the United States which is more perfect than the maps which are now prepared by Dr Denison We doubt if there are half a dozen climatologists in the Union who could give as much information concerning their own locality as could be obtained from these maps They might be accurately termed "weather calendars" The Annual Map shows the cloudiness, the temperature, rainfall, direction, velocity of winds, and the comparative windiness, elevations above the sea level, ranges of temperature, relative and absolute humidities, the dew point, and the vapor tension

The Seasonal Maps show the combined humidities, isotherms, wind arrows, and seasonal tables It would be impossible, in a short notice, to show the importance of these items for the physician who is consulted as to the selection of a health resort, but it should suffice to say that one who is ignorant of their importance is as unfit to give advice on this subject as the man who has never studied materia medica and therapeutics is to write a prescription for medicine To sav nothing of their value as sources of information, these maps are the greatest savers of time that one can well imagine, data may be obtained at a glance which would otherwise involve hours of reading, even if the material for the reading could be found

Dr Denison has commenced work in a mine which is far more valuable than any of those subterrestrial which have been opened in his native state, for it is a mine which includes the whole of this vast extent of country The amount of labor that must have been expended upon the preparation of these maps is simply immense Not only the profession, but the people, both of this country and of those across the waters, owe Dr Denison a debt of gratitude for his painstaking care and accurate work, and we can but hope that the former, at least, will show their appreciation of his valuable contributions to a much neglected, though vastly important subject Every physician who has reason to suppose that he will ever send a patient to a health resort should have one of these maps in his office

ASSOCIATION ITEMS.

REGISTRATION AT THE ASSOCIATION MEETING

We have received the following notice regard ing the registration of members and delegates at the next meeting of the American Medical Association

Members will be registered in the Medical Department of the Tulane University, of Louisiana (Common street, between Baronne and Dryades streets), and adjacent to Tulane Hall, where the general meetings will take place

Registration will begin on Monday, April 27, and the hours will be from 9 A M to 1 P M, and from 4 to 6 P M, daily In the registration room there will be four desks — one for registering all names from A to E, a second, F to L, a third, M to R, and a fourth, S to Z

STANFORD E CHAILLÉ

RAILROAD FACILITIES TO THE ASSOCIATION MEETING

Members and other physicians who anticipate starting from Chicago, or going via Chicago, who are desirous of going on the special limited express train of Pullman Palace Cars that will leave Chicago on the Illinois Central railroad, Saturday evening next (April 25), at 9 o'clock, had better secure their berths at once, to better facilitate the management in Chicago of providing sufficient sleeping-car accommodations, as we understand that excursions from other points will make close connections with this train at various places along the route The coming meeting in New Orleans gives promise of being an eminently successful one, judging from the number of papers that have already been announced An unusually large delegation of Chicago physicians have signified their intention of attending this meeting Among the number will be twenty-eight delegates from the Chicago Medical Society, several of whom will be accompanied by ladies It may be well to state again that living expenses in New Orleans vary considerably, but the prospects are that all will be amply provided for at a reasonable rate, at places that are convenient to all portions of the city, and where sleeping rooms, with breakfast, may be had The rest of your meals may be procured down town, or at the Exposition, or elsewhere, as fancy and convenience should suit you The fare for the round trip from Chicago to New Orleans on this train will be $20 for tickets good for fifteen days, or $25, with the tickets limited to forty days, with stop-over privileges on returning, etc, etc The sleeping-car fare is $6 for a double berth, or $12 for a section

For further information regarding rates and berths, apply at the ticket office of the general northern passenger agent, Illinois Central Railroad Company, No 121 Randolph St, Chicago

NECROLOGY.

JAMES LAWRENCE LITTLE, M D

Our regret in announcing the death of this well known surgeon is but the forerunner of that which will be felt by those who will subsequently read of his death He died very suddenly, on April 4th, of peritonitis, induced by perforation of the vermiform appendix

James Lawrence Little, M D, was born in Brooklyn, in February, 1836 While studying medicine he was a private pupil in the office of the late Prof Willard Parker, and he received his degree in medicine from the College of Physicians, of New York, in 1860, after having previously served in the Bellevue Hospital for six months as Junior Assistant Physician Immediately after receiving his degree he was appointed Interne to the New York Hospital, on the surgical staff, and served for two years — the regular term at that time On leaving this hospital he entered the military service, and was at once appointed Surgeon-in-charge at the Park Barracks, which consisted of a number of wooden structures hastily fitted up as a refuge for sick and wounded soldiers passing through New York to or from the seat of war Three years after graduating he was appointed first surgical clinical assistant in the College of Physicians and Surgeons, being thus placed under his former preceptor, Dr Parker This position he held for several years with great credit to himself and to the manifest advantage of the clinic

In the following spring he delivered a course of lectures in the college on "Fractures and their Treatment" These lectures were delivered annually until the spring of 1868, when the regular summer faculty was formed, and he was appointed lecturer on Operative Surgery and Surgical Dressings, which position he held for more than ten years Meanwhile he had commenced practice in the city, and was soon engaged in a large surgical practice It was not long before he was appointed one of the surgeons to St Luke's Hospital, and shortly after that a like position in St Vincent's Hospital In 1875 he was offered the Chair of Surgery in the University of Vermont, this was accepted, and the subsequent success of this department of the university is largely due to his personal efforts and influence In 1882 he was largely instrumental in organizing the New York Post-Graduate Medical School, in which he occupied the position of professor of surgery Besides these positions, he was consulting surgeon to the Mary Fletcher Hospital, at Burlington, Vt, and was a member of the American Medical Association (permanent), of the New York State Medical Society (permanent), a Fellow of the New York Academy of Medicine, member of the Medical Society of the county of New York, of the New York Pathological Society, of the New York Surgical Society, of the Northwestern Medical and Surgical Society, and of the New York Physicians' Mutual Aid Association

Though Dr Little wrote but very seldom for a surgeon of his ability and experience, what he wrote was valuable, and commanded the respect of his readers His publications were confined almost exclusively to the periodical press Possibly his earliest, certainly his most important paper, was the one published in 1861, describing a new method of treating fractures by means of the plaster-of-Paris splint, the method which has been so extensively adopted since that time It was afterwards enlarged, and republished and circulated by the Sanitary Commission This paper was published while he was yet a hospital interne, and it will probably be by it that he will be best remembered He was an acknowledged authority on lithotomy, especially the median operation, having performed it more frequently, perhaps, than any surgeon in America It was upon the subject of Median Lithotomy that he wrote one of his most important papers There were many points in Allarton's median operation that he simplified Possibly the most brilliant operation that he performed was a simultaneous ligation of the subclavian and carotid arteries of the right side for aneurism of the first portion of the subclavian The account of this operation was published in 1878, in the *Hospital Gazett* The list of his papers includes "Puncture of the Bladder by Dieulafoy's Aspirator," 1872, "An Excision of the Lower Jaw," 1873, "A Case of Naso-pharyngeal Tumor," 1876, "A Modification of Lister's Antiseptic Dressing," 1881, "Five Successful Cases of Tracheotomy for Croup," 1883, "Operation for Restoration of the Lips," 1883, and a "Case of Hypospadias," 1883

As a surgeon Dr Little was regarded as exceptionally successful, indeed, he was spoken of by his colleagues as a "lucky" surgeon, but it is questionable if the element of luck played any part in his success He was a thorough anatomist, a keen observer, possessed of unusual "common sense," and was a master of his chosen field of medicine His reputation as a teacher and a lecturer was second only to his ability as a good surgeon

After the second battle of Bull Run he offered his services to the government at Washington, and was assigned to the charge of a temporary hospital in that city Subsequently he responded to a call of the governor of his native state, and was assigned to field work in Virginia In the spring of 1864, when the Citizens' Association of New York instituted the sanitary reform, he was appointed one of the inspectors His report on the condition of the Twenty-first Sanitary Inspection District was very able, and was embodied in the report of the Council of Hygiene of the association, and it is to this, in great part, that New York city owes its present Board of Health

MISCELLANEOUS.

THE SURGERY OF THE KIDNEYS —HENRY MORRIS, M B, Surgeon to the Middlesex Hospital, recently opened the discussion on the surgery of the kidneys, before the Medical Society of London, by considering (A) the symptoms which should guide us with respect to surgical treatment, (B) which of the operations is best adapted for particular cases, and (C) as to how we can most safely and certainly find out the working power of the second kidney In answer to the first question, A, he lays down the following propositions

1 Although hæmaturia, associated with frequency of micturition and a small amount of pus in the urine, is, in the absence of disease in the lower urinary tract, strong evidence in favor of

renal calculus, yet pain, either in the loin, groin, or testicle, of one side, is also needed to justify the surgeon in exploring the kidney through the loin

2 Pain alone, when persistent, or frequently paroxysmal, and giving rise to sickness and sweatings, or subject to exacerbations during perfect rest, justifies lumbar exploration When there is a history of hæmaturia without pus, or a trace of pus without a history of hæmaturia, associated with one sided pain, the exploration ought to be made if alkaline treatment have failed

3 When the above symptoms occur in persons with acid urine, or of gouty tendency, or who lead sedentary and indulgent lives, alkaline treatment and diet ought to have a prolonged trial before proposing an exploratory incision

4 When the urine is alkaline from carbonate of ammonia, and not from fixed alkali, the alkaline treatment should be tried, on the ground that urine, very acid when secreted, irritates and inflames the mucous membrane, and so causes the alkalinity which is found when the urine is discharged from the body

5 Under certain circumstances, an abdominal exploration in search of calculus is justifiable when there is nothing to specialize which kidney is the seat of the stone

6 If strumous, not calculous, kidney causes the above symptoms, the lumbar incision of the kidney may give great relief by affording exit to pent-up pus An exploratory incision, under these circumstances, is a very advantageous thing

7 Under the circumstances previously stated, digital exploration of the bladder in search of calculus in the ureter ought to be made, and, if a stone be found in the vesical orifice, it ought to be removed

8 Removal of a calculus impacted in the ureter, by intra-peritoneal urethrotomy, is feasible, and in certain cases ought to be practised

9 Exploration of the kidney should not be considered complete till incision of its substance has allowed of the thorough examination of the calyces and nephrectomy for calculus, in kidneys not disorganized, ought not to be entertained until after free incision of the kidney and digital exploration of the bladder have failed to disclose the calculus

10 Exploration of the bladder, in the female certainly, and in the male generally, ought to be made before nephrectomy is resorted to for hydronephrotic and pyonephrotic tumors

11 A stone in one kidney will sometimes excite sympathetic pain and irritation in the opposite one, but this transferred pain is of an aching character, not spasmodic or colicky, and it should not deter the surgeon from exploring when there is well marked and frequently recurring pain in the opposite loin

12 Experience suggests that after lumbar exploration of the kidney the patient should keep on his back, and a well adjusted compress should be placed on the abdomen over the front of the organ explored, as there is, though rarely, a tendency for the kidney to fall away from the loin, and delay the completion of the healing of the wound

The other questions he considers in a discursive manner, and has not distinctly formularized any propositions regarding them —*British Medical Journal*, February 14 1885

DIVERTICULUM IN FEMALE URETHRA —PROF SANTESSON, of Stockholm, has described, in the *Nordiskt Medicinskt Arkiv*, a case in which a pouched condition of the urethra caused severe symptoms The patient was a middle-aged widow, who, after a confinement, suffered from difficulty in micturition At the end of twelve years this symptom had become very troublesome, and a large swelling filled the vagina whenever she passed urine A catheter could be introduced up the urethra, and through a circular orifice into the swelling, and then urine mixed with mucus escaped as the swelling collapsed When, on the other hand, the swelling was pressed firmly by the finger introduced into the vagina, it emptied into the bladder, this manipulation always causing great pain If the patient were prevented from voluntary micturition, for which she felt a desire almost every hour of the day, the bladder emptied itself by a painful, spasmodic contraction After cauterization of the urethra, and the removal of three small vascular growths, the patient enjoyed comparative comfort for two years, when the sudden, involuntary action of the bladder became very frequent The vaginal wall of the diverticulum was destroyed by caustics After the separation of the eschar, and healing of the wound, the circumference of the diverticulum was reduced by half For two years the patient remained free from incontinence of urine and frequent desire to micturate, then these distressing symptoms recurred The remainder of the vaginal wall of the diverticulum, including the cicatrix, was excised, and the edges of the wound united by sutures The wound partially sloughed, and did not heal completely for five weeks The diverticulum was now reduced to a mere digital depression, and relief remained complete for four years, when the diverticulum again increased in size, and all the bad symptoms returned The patient suffered from nephritis, cystitis, and dilatation of the urethra, the walls of which were also œdematous A syphilitic rash was discovered on the trunk and extremities She was, in fact, in a state quite unfit for any operation, and was sent to an infirmary, where she died two years later, having suffered for about twenty two years from the diverticulum, excepting during the intervals of relief due to the operations Dr Santesson felt inclined to attribute the origin of the diverticulum in this case to damage of the urethral walls during protracted labor —*British Medical Journal*, Feb 14, 1885

Health Matters in Chicago —Health Commissioner DeWolf, of Chicago, has recently sent the following instructions to the Sanitary Inspectors Each officer will be held responsible for the sanitary condition of his ward to this extent He must see to it that the owners or agents of all vacant lots, house yards, areas under sidewalks, and privy vaults which need cleaning are notified by proper order to perform the work, and if they fail he must see to it that all legal processes are taken to oblige them to do so If, after such notice and suit, he still fails to secure the cleaning required he cannot be held responsible, but unless he can show such notice and suit after proper time, all complaints against filthy premises in his ward will be counted against the officer and will be the guide to his retention in his position Officers will be held responsible for the work done by the scavengers under their control, and if detectives show that scavengers are lingering in saloons, or making short time, or failing in any way to perform their duties for which they are paid, and the officer is not reporting such failure, such officer will be discharged from the service During the summer months officers are expected to be on duty in their wards from 7 o'clock A M until the time for reporting at the health office, except one hour for dinner, and any officer absenting himself from this duty, unless called by official work or by permission from the Commissioner of Health, will be required to explain such absence

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The Inhalation of Defibrinated Blood — In view of the bad results which follow the ordinary methods of transfusion of blood, and of the great tolerance of the respiratory organs to foreign fluids, and the rapid absorption of the latter, Professor Fabrini, of Palermo, calls attention, in the *Centralblatt fur die medicinische Wissenschaften*, No 9, 1885, to what may be termed pulmonary transfusion The fluid employed consists of twenty parts of bullock's blood and eighty parts of a three-fourths per cent watery solution of chloride of sodium, in which the red corpuscles preserve their normal properties for a long time Inhalations of about three ounces and a half of the mixture, through the medium of an ordinary spray apparatus, do not excite coughing, nor do they bring about any perceptible alterations in the circulation, respiration, or the temperature, and auscultation shows that the mixture is rapidly absorbed

Fabrini has resorted to this novel method of transfusion in cases of oligæmia with the best results, as indicated not only by the improvement in the general condition of the patient, but also by the increase in the relative number of the red corpuscles, and in the quantity of hæmoglobin These results are stated in a general way, and not supported by details of cases Hence, more extended trials will have to determine the value of the method —*Medical News*, April 4, 1885

Malformation of the Kidneys —MM Bourneville and Bricon report the following curious malformation of the kidneys, occurring in the body of an idiot whose body was examined after death from tuberculosis

The ureters were dilated to the size of a large goose-quill, the dilation being more pronounced at the upper part The pelves were also very much dilated The kidneys were found to be united at the lower extremities They were directed from above downward, from behind forward, and from without inward Their upper extremities corresponded to the junction of the first and second lumbar vertebræ, and the general appearance of the two organs was not unlike that of a horseshoe, the middle of which rested upon the intervertebral disk of the fourth and fifth lumbar vertebræ The kidneys seemed to have undergone a sort of rotary movement, which had carried the hilus forward The two ureters descended obliquely, passing the anterior part of the horseshoe about two mm from the median line, leaving their impression at this point The decortication of the kidney, which was not lobulated, was easily done A few stars of Verheynn were found at the surface On section, the organ appeared normal The pelves were filled with a kind of magma The total length of the horseshoe was twenty-three cm There were also anomalies of the arteries and veins in this subject —*Progrès Médical*, March 7, 1885

Treatment of Sprains —According to M Marc See there are two indications in the treatment of sprains 1, To provoke rapid absorption of the fluid effused around and within the joint, and 2, to favor cicatrization of the torn parts by immobilizing the articulation Now, the modes of treatment hitherto in vogue do not fulfil these two indications Massage would seem to present some real advantages, but it can be of little service in the case of severe sprains, and mild injuries would probably do as well under rest alone M See advises an elastic bandage, the depressed parts being covered with a layer of cotton so as to prevent too great pressure over the prominence, and thereby causing sloughs This bandage acts like massage in promoting absorption, and also secures immobility of the joint It is of equal service in sprains complicated with rupture of points of insertion, whereas massage would be productive of harm in cases in which splinters of bone were torn away —*Revue Medicale*, January 31, 1885 —*The Medical Record*, April 4, 1885

Subcutaneous Urethrotomy —In a letter of Dr Eugenio Casati, from Vienna, to the *Raccoglitore Medico* of February 28, 1885, is described Dittel's method of performing urethrotomy It may be called subcutaneous external urethrotomy A large grooved sound is first introduced and passed down to the seat of the stricture, the groove looking toward the posterior part of the urethra Then a rather slender tenotome is introduced beneath the skin and passed down until the point engages in the groove of the sound, when it is driven forward, cutting the stricture from within outward The writer states that the operation has given excellent results in Dittel's hands, but it is one that requires some skill, since it is performed, as it were, in the dark, and the operator can be guided by the sense of touch alone —*The Medical Record*, April 4, 1885

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS —Annual meeting, New Orleans, La , April 27, 1885 The annual meeting of the Association of American Medical Editors will be held in New Orleans, La , April the 27th, at 8 P M in the Medical College Building The annual address will be delivered by the president, Henry O Marcy, M D , of Boston, Mass , on "The Legislative Establishment of Medical Examining Boards in America" Papers are expected from Dr F E Daniel, of Austin, Texas, Dr F S Billings, Boston, Mass , Dr Richard J Dunglison, Philadelphia, Pa , Dr John V Shoemaker, Philadelphia, Pa , Dr L Connor, Detroit, Mich , and others All members of the profession are cordially invited to be present and participate in the meeting, especially journalists and authors

H O WALKER, M D , Secretary,
33 Lafayette Ave , Detroit, Mich

SICKNESS IN THE EGYPTIAN ARMY —General Lord Wolseley has sent to the war office a significant report made out by the medical staff attached to the Khartoum expedition The subject of this report is the result of the exposure to the desert heat, of the British troops stationed along the borders of the Soudan desert The report states that if the present British military station in the Soudan be maintained, fully one-half of the troops will die or be disabled by the heat before the arrival of autumn —*The Medical Record*, April 11, 1885

THE MEDICAL ASSOCIATION OF THE DISTRICT OF COLUMBIA elected officers for the ensuing year, on the 7th inst , as follows President, Dr D C Patterson, Vice-Presidents, Drs A F A King and J O Stanton, Secretary, Dr Lachlan Tyler, Treasurer, Dr S S Adams, Board of Counselors, Drs J W Bulkley, J W Lovejoy, W H Taylor, J T Johnson, C W Franzoni, C E Hagner, E C Morgan, J F Thompson, and G B Harrison Board of Censors Drs T C Smith, W C Briscoe, and J H Mundell

CHOLERA IN SPAIN —Dispatches from the Continent state that cholera has appeared on the western coast of Spain It first appeared in the province of Valencia, but has extended thence to other portions of the country, to the Balearic Islands and to Malaga There are indications that the whole sea coast will be soon infected

RICE AS A STYPTIC —Powdered rice as a styptic remedy has a great effect on fresh wounds, much superior to oxide of zinc By mixing from four to eleven per cent of it with lint, and using the lint thus treated as a compress, it is very effectual and more valuable than subnitrate of bismuth, salicylic acid, or carbolic acid —*Dublin Jour Med Science*

QUARANTINE AT MARSEILLES —On account of the appearance of cholera in Spain, a three days' quarantine has been ordered at Marseilles on all vessels shipping from Spanish ports

SIR HENRY THOMPSON'S NOVEL —The *Lancet* states that the rumor is true that "Pen Oliver, F R C S," the author of the novel "Charley Kingston's Aunt," is Sir Henry Thompson

DR BILLINGS' LECTURES IN COLUMBIA COLLEGE —It is stated that Dr John S Billings has been invited to extend his course of lectures on Hygiene from twelve to twenty lectures

THE REGULATION OF VETERINARY PRACTICE —A bill has been introduced into the New York assembly to regulate the practice of veterinary medicine, it is said that it is likely to pass

THE INDIANA STATE MEDICAL SOCIETY will hold its next annual session in Indianapolis, on the second Tuesday in May, and will continue for three days

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED APRIL 11, 1885

Bailhache, P H , Surgeon Chairman of board for physical examination of candidates for appointment as Assistant Engineers, Revenue Marine Service April 6, 1885

Vansant, John, Surgeon Chairman of board for physical examination of officers of the Revenue Marine Service, April 11, 1885,

Purviance, George, Surgeon Granted leave of absence for one week, April 6, 1885

Stoner, G W , Surgeon Member of board for physical examination of candidates for appointment as Assistant Engineers, Revenue Marine Service, April 9, 1885

Godfrey, John, Surgeon To represent Service at annual meeting of American Medical Association, April 11, 1885

Goldsborough, C B , Passed Assistant Surgeon To proceed to Pascagoula, Miss , as inspector, April 8, 1885

Carter, H R , Passed Assistant Surgeon Member of board for physical examination of officers of the Revenue Marine Service, April 11, 1885

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Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

Vol IV | Chicago, April 25, 1885 | No 17

ORIGINAL ARTICLES.

ELECTROLYSIS IN SURGERY, AND TABULAR STATISTICS OF ONE HUNDRED CASES OF URETHRAL STRICTURE[1]

BY ROBERT NEWMAN, M D,

SURGEON NORTHWESTERN DISPENSARY, NEW YORK, HONORARY MEMBER ULSTER COUNTY MEDICAL SOCIETY, ETC

Electrolysis is the process of decomposing a compound body by electricity Applied in surgery this process has also the power of absorption

Webster's definition of absorption is "Absorption is the process, or act, of being made passively to disappear in some other substance, through molecular or other invisible means, as the absorption of light, heat, electricity, etc" Therefore, I have called this action "a galvanic chemical absorption" The body to be decomposed or absorbed must be a conductor, and must possess certain elements susceptible of decomposition by the current, it must also contain water and a salt Blood and muscular tissues are good electrolytes and fibrous tissues are more or less decomposed, according to the elements which enter into their composition If the parts to be acted upon are devoid of water, the electrolytic action will be slow, because water or moisture is an essential factor, and forms one of the necessary elements of successful battery decomposition

The Battery—Any good *galvanic* battery can be used for electrolysis The expert and specialist may have large instruments with auxiliaries, but the general practitioner can begin by using a small battery of twenty cells, which suffices for most of the operations The Bunsen elements of zinc and carbon have given the best satisfaction, with cells made of hard rubber containing a solution of diluted sulphuric acid and bichromate of potassa The fluid ought not to be too strong, or the action will be very violent at first, and the polarization too rapid, very soon weakening the current and incrusting the elements with crystals The battery must be arranged for intensity rather than quantity, or, practically speaking, the current must not cauterize the surface, or cut and destroy tissue like galvanocautery, but must work, according to the power employed, within a certain radius of the pole, in order to bring about decomposition Hence, we want smaller plates and use more cells A steady current is essential,which on in- or decreasing, the current will produce no shocks from interruptions A rheostat attached to the battery is a nicety, convenient in some cases, but as a rule, it is not needed, as the current can be graduated sufficiently from cell to cell, slowly increasing or decreasing it, which in a well constructed battery is the case It is more impracticable to state dogmatically how many cells or how great an amount of electricity should be used in these operations than to lay down the dose of morphine, or any other drug, that would suit all patients The amount of electricity to be used depends partly on the work to be done, partly on the nature and composition of the part to be acted upon, and particularly does it depend on the sensation and susceptibility of the patient, for these reasons a galvanometer is of little use, even if we had one that measured the current correctly It would certainly be desirable to express the "dose" of electricity in terms comprehensible to everybody, just as we designate the doses of drugs, but correct galvanometers and portable batteries, in the strictly practical sense, are still things to be looked for in the future However, in the practical application of electricity there are still other facts to be considered, such as the state of the atmosphere, which conducts electric currents and modifies its resistance by the amount of humidity it contains In clear, dry weather six cells will accomplish as much as ten cells will in a rainstorm or during a fog The state of the cuticle, the material composing the electrodes, the strength of the fluid, the clean or crystallized surface of the elements, and many other factors, will modify and alter the result, and a patient may not be able to endure so much one day as he had borne previously Hence, to express the amount of current by stating the number of cells used is indefinite, and only relatively correct The electrode wires, which conduct the electric current from the battery to the handles or electrodes, are best made of copper wire, insulated by woven cords or a gutta-percha covering One end of the wire is connected with the positive and negative poles respectively, and the distal end is fastened by screws to the electrode The points of the electrodes are made of different metals, as copper, zinc, nickel, silver, gold, or platinum, which are formed into different shapes, as bougies, needles, cups, plugs, specula, etc., according to the part upon which it is to be employed. In some cases it will suffice if only one electrode is of metal, while the other may be a sponge electrode, its only function being to close the circuit.

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[1] Read to the Section on Surgery and Anatomy, June 6, 1883

The Action of the Poles.—In order to use electrolysis intelligently, it is of the greatest importance to know the difference and peculiar action of the two poles. If we decompose water by electricity, we find that the oxygen is attracted by the positive and the hydrogen by the negative pole. Now we should remember that *pure* water is not easily decomposed, but the difficulty is overcome if the water holds some salts in solution. If so, then the positive pole will attract the acids, and the negative the alkalies and bases. Hence it is that the positive pole acts like an *acid*, and burns like fire, which is not only exceedingly painful, but may leave a hard resilient cicatrix. On the other hand, the negative pole acts more like a caustic alkali, which does not hurt so severely during the application, and leaves, if carried to excess, a cicatrix which is soft and not retractile. Having become acquainted with the different properties of the poles, which possess each their own specific powers, it is evident from the foregoing that for the immediate destruction of tumors and strictures the negative pole should be selected. Therefore the principal actions of the poles in electrolysis will be as follows:

Positive pole coagulates blood, attracts acids and oxygen.

Negative pole dissolves the blood, attracts alkalies, bases, and hydrogen, coagulates albumen and absorption.

Experiments for the Decomposition by Electrolysis.—To illustrate the action of the poles as described, I will now electrolysize a solution of iodide of potassium in water. This can be done by simply holding both poles in the solution, while the galvanic battery is generating electricity.

The experiment, however, which I now will make before you is more strikingly demonstrative, and I believe is original with me. These two small glass vials I fill with a solution of iodide of potassium. The bottoms of the vials are substituted by a piece of a pig's bladder, the necks of the vials are then stopped by a cork, through which runs a platinum wire, one end of which is immersed in the solution, and the other end from each bottle is attached to one pole of the galvanic battery.

Both vials so closed, are now placed in a dish of water; they are six inches distant from each other. There is, as is seen, no communication between them except the water, and so long as the battery is at zero, you will see no change in the solution, which is transparent and undisturbed. Please notice the change which now takes place as soon as the battery begins to act. I begin with only six cells, and you will notice almost immediately in the vial connected with the positive pole, that in the clear solution streaks of yellow appear, and in about five minutes the vial contains only a dark-yellow fluid, which is the iodine set free at this pole. At the negative pole the contents of the vial remain clear, only the bubbles of froth welling up. This is the hydrogen set free from the water. The result of this electrolysis is iodine, oxygen, and hydriolic acid at the positive pole, while at the negative pole we find hydrogen and potassium.

If this same experiment is tried with a Faradic battery, as I have often verified, no change whatever takes place in the solution. This is another proof that the action of the galvanic current is widely different from that of the Faradic, and that for electrolysis a galvanic current only can be used.

To ascertain whether a battery is in good working order, and to find out which pole is positive or negative, the same experiment is of value, and can be made instantaneously with pure water. If the two poles are held in a dish or glass of water, around the negative pole the bubbles and froth of the hydrogen will be seen plainly to accumulate. If no action takes place, the battery is out of order, and does not generate the current.

Practical experiments I have made on dogs, also on pieces of meat and pathological specimens, particularly with carcinoma. From among them I will mention the following:

1. Into a piece of raw fresh pork two large platinum needles were inserted, at a distance of three inches. The current from a galvanic battery of thirty-five cells was allowed to pass for fifteen minutes, after which time the meat between and around the needles was thoroughly changed into a soft pulp. A weaker current caused changes accordingly; the current of five cells produced distinct effects in five seconds, twenty cells in one second.

2. Into a piece of meat containing a bone in its center the needles were inserted at a distance of 2½ inches from each other. One large platinum needle was then connected with the positive pole, while with the negative pole two small steel needles were connected. These needles were inserted close to the bone, and one directly into the bone cells. The galvanic current of thirty-five cells in fifteen minutes produced changes in the entire tissues, so that even the bone around one negative needle was entirely destroyed.

Practical Uses in Surgery.—Manifold are the reports of the use of electrolysis in the different branches of surgery. Want of space will not permit me to present all these here, therefore I will mention some only in a cursory manner, without going into their details, descriptions, or systematic orders. The electrolysis has been used with more or less success in the following diseases:

Aneurism.—The first cure is reported by Petriquin as far back as 1845 (*Bulletin Gén de Thérap.*, Vol XXXI) Many other cases are reported, among them, however, are a large percentage of failures More recently better results have been obtained, so that out of eighty nine cases thirty-two cures have been reported, one of which was an aneurismal tumor of the external iliac Dr Bowditch reports one case of aneurism of the aorta, unproved, in 1876 (Boston *Med and Surg Jour*, No 2, 1876) Among other operators are Ciniselli, Dujardin-Beaumetz, Laurent Robin (Robin, De l'Electro poncteur dans la Cure des Anevrysmes Intra-thoraciques, 1880), Sands, Lincoln, Keyes, Levis, Pepper, Heath (*Lancet*, Jan 31, 1883), and others

In *varicocele* I have had cures and failures, according to the different cases, patients, and methods employed

Nævi and port-wine marks have resulted probably in many more failures than successes, and galvano cautery acts in general better in these cases However, (Beard, in *Archiv of Elect and Neurolog*, Vol II, No 1), Bartholow says "Polypi, nævi, sebaceous tumors and similar new formations are promptly cured by electrolysis"

Subcutaneous erectile tumors have been successfully treated by W T Hutchison, of Providence (*Archiv Electrol and Neurol*, Vol II, No 1)

Ganglions, or weeping sinews, have been cured by David Prince, of Jacksonville, Ill The doctor says "A needle introduced through the little tumor which incloses the gelatinous accumulations around a tendon, and held there only a few seconds until some apparent action has been induced, leads generally to a speedy disappearance of the tumor without slough or suppuration

Hydrocele cures by single, or by repeated applications have been reported by Althaus, Frank (*Archiv of Electr and Neurol*, Vol I, No 2) Rodolfi (*Practitioner*, September, 1873), Erhardt (*Allgem medic Central-Zeitung*, 99, 1874) Bartholow (Medical Electricity, 1881) The principal method recommended consists in evacuating the fluid, then introducing two needles into the tunica vaginalis, where the electrolytic action is carried on Variations of this method may be made Failures with this method take place, just as well as with other means The removal of superfluous hair is practised, and reported particularly by G H Fox (New York *Medical Record*, March 22, 1879)

In *extra-uterine pregnancy* electrolysis has here come to the rescue of surgery, saved life, and has done more in these cases than any other procedure Repeated applications of galvanism, one pole in vagina or rectum, the other pole above the abdomen has destroyed the fœtus

E G Landis was successful in a case of repeated extra uterine pregnancy (*Medical News*, April 8, 1882)

Rockwell reports cases (*Medical Record*, February 17, 1883)

Ranula—The electrolysis decomposes the contents of the sac, coagulates or destroys it I have had a few cases

Tumors of all kinds give a wide field for the treatment of electrolysis The sanguine reports of some operators are contradicted by return of the malady and other unsuccessful cases However, the successes of undoubted cases should stimulate the continuation of treatment in this direction in order to establish good methods Cystic tumors of the neck have been reported cured by Amussat (*Bull Gén de Thérap*, October 15, 1872), Ultzmann (*Wiener med Presse*, No 42-46, 1876), cures of cystic bronchocele by Smith (New York *Med Record*, August 7, 1875), and Althaus (*Brit Med Jour*, Vol II, 1875) In solid tumors good results have been reported in Goitre by Wahltuch (*Medical Times and Gazette*, January 28, 1877), in enlarged submaxillary glands by Davis (Philadelphia *Med Times*, October 2, 1871) In nasal polypi by Bruns (*Berlin Klin Wochenschrift*, No 27-28, 1872, No. 32, 1873)

Morrell Mackenzie in a paper on bronchocele says he cured by electrolysis nine cases out of thirteen

Ovarian tumor cures have been reported by different authors, but particularly by Van Ehrenstein Clemens (*Deutsche Klinik*, No 26-7, 1875), and Scmeleder (*Wiener Presse*, loc cit, No 50 and 52) The latter extols his favorable results with great force and assurance, and has only recently confirmed his successes and added new cases to his list

Van Derveer reports successful cases by an entirely empiric method (Trans Med Soc State of New York, 1878) Other authors have changed their favorable opinion, and later on reported adversely An elaborate paper is written by Paul F Mundé (Gynæcological Transactions for 1878), in which he expresses great doubt about the permanent good results of electrolysis in ovarian tumors My own experience in these cases is not favorable, but I admit not having been persistent long enough in this treatment, as a peritonitis following the puncture of the needle frightened me from further experiments Similar and even less satisfaction has electrolysis given in the treatment of uterine fibroids In most cases reported as cured, the disease reappeared

Malignant tumors, including epithelioma, carcinoma, and sarcoma With these diseases I have had considerable experience, the results varying in both directions While some patients succumbed to the disease, others were permanently cured One case, particularly, has been reported to the Pathological Society, New York, in which the history and diagnosis were fortified by specimens and microscopical slides, which removed any doubt about the correctness of the statement (Newman, *Medical Record*, December 24, 1881)

Among other favorable reports, I mention W H Mussey (Transactions Amer Med Assoc, 1872), Rockwell (*Archiv of Elect and Neurol*, Vol I, p 74), Neftel (*Virchow's Archiv*, Vol LXX, p 171), (New York *Medical Record*, September 1, 1869) The difference of opinion, and some doubts of some in the profession about similar cases, is not a disagreement, but depends on the nature of the disease In the initial stage, when the tumor is a local affair, with distinct boundaries, the disease is amenable to treatment, while later, when the lymphatics have carried the cancer cells farther on, and made it a constitutional calamity, no treatment will be of any avail In the former case the electrolytic treatment has an advantage, but the success depends on the method employed, on the skill and patience of the operator, on the constitution of the patient, on the location and nature of the tumor, etc A wide field is open for the study of these diseases, and I am confident that the future will bring an improved method for the successful treatment of cancer by electrolysis

Prostate —In the disease of the prostate gland and seminal ducts great caution is required in order not to cause an inflammation or over-stimulation of the parts There is no doubt that with care in the manipulation of the instruments and the electric current much good can be done Diminution of senile hypertrophies has been effected by different operators Five cases have been reported by Bredert (Hageman) in the *Berliner klinische Wochenschrift* Indurations in the pelvic cavity of females, the consequence of pelvic cellulitis, metritis, oöphoritis also salpingitis, have been very successfully treated by electrolysis The cases under my case have not been published

Strictures in different localities of the body have been treated by electrolysis with great benefit Gorecki's method for strictures in nasal cavities has also been used for the lachrymal canal, and for the dilatation of the Eustachian tube by M J Mercie (*Medical News*, *Quarterly Epitome*, March, 1883, p 117) Œsophageal strictures yield to electrolysis when not malignant, cures have been reported by Frank, Butler, Prince, and others Strictures of the female urethra are rare, but they occur occasionally and are readily cured (Newman, *Amer Jour of the Medical Sciences*, October, 1875) Next we find the canal of the uterus constricted, causing dysmenorrhœa, and occasionally the vagina In all these maladies electrolysis has done good In 1872 I treated in this manner successfully a case of atresia vaginæ which has not been published

Strictures of the rectum have better chances by electrolysis than by other means, provided they are not malignant In cases under my care I have had failures and successes (Newman, *New England Medical Monthly*, September, 1882), but radical cures have been proved by *post-mortem* specimens presented to the Pathological Society of New York

Stricture of the Urethra —The most brilliant results have been achieved in this field of surgery by electrolysis I have practised it just fifteen years, during which time I have improved myself, the instruments, and the method It gives me pleasure to present to you here a tabular statistic of 100 cases of urethral stricture treated successfully by electrolysis without any relapse Excepting the last few cases, all these patients have been kept under observation, and have remained well without any relapse for three and one-half to eleven years respectively The proof that such patients remained well was given by an examination either by myself or by a reliable family physician, and in each case it was found that the same size of sound passed easily through the urethra, which had been used at the last séance so many years ago These hundred cases may be called consecutive, they have been taken from my note book of private practice, including such cases of patients who had returned for treatment and could be kept under observation Necessarily I had to exclude from this list patients who did not return for treatment, or when cured were lost sight of, going to China or other parts unknown Again, about two cases in regular order I excluded from this list, which had such complications that the stricture could not be cured, one of which was a chronic urethral abscess, the patient having no time to remain in the city, but had to return to his home in Ohio

I can report many hundred cases treated and cured by me of private patients, but some have too recently been treated, others have disappeared or not given their names, besides many perambulant patients in hospital and dispensary practice Such report would swell the number of cases, but is not a reliable statistic, proving cures without relapses Therefore this list presented does not state the whole number of cases or cures, but only a list of patients who have been reexamined in later periods, as stated, and found well, without any contraction of urethral calibre or any relapse Some gentlemen may object to the calibre of the urethra stated in this list, and, according to the fancy of some operators, insist on a larger calibre as a normal one To this I answer, that the size of the urethra is not the important point, the patient's comfort and wish have to be considered The normal size of the urethra is still a mooted question My patients, as reported, were well for all practical purposes, feel comfortable, enjoy life without any interruption to their daily avocations, do not wish any more improvement to their state of health, and even object to any larger calibre of the urethra

The instruments used for this operation consist of a good galvanic battery as described before, and the electrode bougie The latter is of great importance, and has now been perfected and made for me by Messrs George Tiemann & Co, of this city It is of metal, well insulated, except at either end, smooth, well polished, and without any inequalities

The upper end of the bougie is to be connected by screws to the negative pole of the battery, the lower end is a metallic bulb, mostly of silver, which is used as the electrode to absorb the stricture This bulb may have different shapes, as the conical, acorn, or egg-shaped, I prefer the latter for general use My electrode bougies have a short curve Some manipulators advocate straight electrode bougies, but while they can be used only in the first part of the urethra, I can see no advantage for it, while the straight instruments can be used with more force I make it an invariable rule to avoid force, the electrode must be guided only, the work must be done by the electricity, not by the hand I also wish to work through all strictures at one séance, and feel more safe to pass the bougie into the bladder My statistics will show that stricture occurred in all portions of the urethra, that many, nay, most patients under my care had multiple strictures, and that in most cases it is beneficial to introduce bougie and electricity into the bladder In some cases I use conical electrodes, in others I have the conical sounds tunnelled, running a filiform guide, and still other instruments in which the tunnelled electrode is combined with a catheter All are useful, according to the cases and the indication of relief needed

Modus Operandi —The topography of the urethra must be well ascertained, the strictures measured, and a plan for the operation made out accordingly, with a full knowledge of what it is intended to accomplish The patient's susceptibility to the galvanic current must be ascertained The posture which the patient should assume during the operation is a matter of slight importance According to his convenience, he may stand, sit, or lie on his back Anæsthetics are not needed, as no pain is caused, and the patient should be conscious in order to express his sensations For ordinary strictures the size of the bougie selected should be three numbers (French) larger than the stricture This bougie electrode is then introduced into the urethra, until the bulb is arrested by the stricture A sponge electrode, wet with hot water and connected with the positive pole of the battery, is to be held firmly against the patient's skin, either in the palm of the hand or pressed against the abdomen, the thigh, or some other part, to complete the circuit While both poles are held in this manner, the current is to be increased very slowly and gradually, one cell at a time, until the patient feels a warm and slightly pricking sensation The operator must keep the bougie steady against the stricture and soon will find that absorption takes place, that the stricture yields, dilates, the instrument slowly advances and passes the obstruction—at times it will fairly jump through the stricture If there are more strictures than one, the bougie must be guided in the same way until it enters the bladder Then the electrode is to be withdrawn slowly, each stricture well worked out, until the first stricture is passed, when the current is again to be reduced slowly, cell by cell to zero, and not until *then* is the electrode to be removed During the whole operation the electrode must be held loosely and gently, and in its place against the obstruction, all pressure or force being avoided The bougie will take care of itself, doing its work by the electrolytic action of the current A séance might last from five to twenty minutes

In the year 1867 I read a paper before the Journal Association in New York, on my first operations of electrolysis, which I had practised then with most primitive appliances (New York *Med Record*, March, 1867) Afterward a regulated plan, my own method with improved instruments, was discussed in a paper read before the Medical Society of the State of New York (Transactions Med Soc of the State of New York for 1874) The ideas thus expressed have undergone no essential changes, and hold good the present day They have been confirmed by my next report in ten years' experience in the treatment of stricture of the urethra (New York *Med Record*, August 12 and 19, 1882)

While crude experiments have been made since 1847, the pioneers of electrolysis in stricture are Mallez and Tripier During the last ten years contemporaries have reported many successful cases, particularly T T Frank, D Prince, John Butler, Mynter, Benson, A T Douglas, and others

Since my last article was written, August, 1882, almost daily new cases have been presented and treated with the same uniform success The most of these cases were the worst strictures which can come under observation, and many were accompanied by the family physician, who acknowledged that they could not pass such strictures with any instrument, no matter how small Among other new cases I will notice a few in brief

CASE I —Dr D, a practising physician in Long Island, had strictures for the last twenty-five years, and had been treated in the usual manner with only temporary relief The impediment became gradually worse Since 1877 has been under the care of an eminent surgeon, who during these years never has passed a sound through all strictures in the bladder

Patient came under my care in October, 1882, when I found the urethra a mass of strictures and indurated tissue A small *bougie à boule* was arrested at five inches, at which place no instrument would pass

Then with electrolysis a bougie, No 11 French, passed all strictures into the bladder Ten cells were used The operation lasted twenty minutes, after which a good-sized stream emptied the bladder and gave marked relief No particle of blood followed, nor did the operation cause the slightest pain

There were six distinct strictures, respectively at 1¾, 2½, 4½, 5, 5¾, and 7 inches from meatus The electrolytic applications were repeated in large intervals from three to six weeks each The patient was not detained from his business, and improved steadily, so that on February 13, 1883, a bougie No 26 French passed easily

Case II —October 17, 1882, Mr B , from Jersey, was brought to my office by several physicians, who all acknowledged that they could not pass any instrument through the strictures The patient has suffered for fifteen years, and is now run down, very weak, has lost flesh, never free from pain, is constantly straining, and can neither pass water nor retain it The urine dribbles away constantly and excoriates the tender skin, notwithstanding the patient wears a urinal

On examination I found the statement of the doctors correct a mass of hard strictures Filiform bougie entered everywhere in lacunæ, which bleed on ever so careful an examination At 5 inches no instrument will pass, and is arrested The family physician says he knows no instrument will pass any further If he had been able to pass it he would not have brought the patient to me

Then electrolysis was used with a bougie, No 14 French, eleven cells, seven minutes, in which time the bougie made steady progress, and passed finally into the bladder, to the great relief of everybody present

There were five distinct strictures at 3½, 5, 6, 6½, and 8 inches from meatus In four séances, up to November 28, he has so much improved that he has gained fifteen pounds in flesh, his normal weight Water passes freely, the bladder is entirely under his control, and the urinal discarded He is well, attends to his business and enjoys his life

Case III —T T came to me, November 14, 1882, with complete occlusion of urethra and consequent retention of urine Has had strictures for twenty years No treatment cured him The strictures became worse, so that recently he was in constant pain, having incontinence and retention at the same time, the water constantly dribbling away and incapacitating him for any work The smallest instrument will not pass, but an electrode bougie, No 14 French, worked its way slowly, with the power of twelve cells, and for seventeen minutes, through all strictures and into the bladder

December 20, after three electrolytic seances, patient said that his stream is large, and he is better in every way than for the last twenty years Soon after, a bougie, No 23 French, passed easily

Cases like the foregoing I see often, of long standing, of twenty years and longer, in which all kinds of treatment have been used without effecting any cure, and these yield to the method by electrolysis, with a permanent cure

Often, and in many cases, it has been proved that electrolysis would make pass a bougie of a certain size through strictures which nothing could be introduced *without* the aid of electricity

Case IV —February 20, 1883, W J A , æt 36 years, of Bridgeport, Conn , had a stricture for over ten years, following a gonorrhœa which off and on closed up Used a dilator of his own invention, a spiral instrument, to dilate the stricture Sunday last, in using this instrument, he ruptured the urethra, which was followed by pain and hæmorrhage Micturition was imperfect, with pain, and drop by drop by overflow, the bladder never being emptied Tuesday, two days after the accident, patient was brought to my office by his physician, Dr B W Munson, of E Bridgeport Patient was very nervous, exaggerated by a severe psoriasis Whalebone guides of different sizes would not enter further than five inches, the seat of the stricture and rupture Each guide entered and stuck in some of the numerous pouches, but none entered or passed the stricture—the guides thereby created more irritation and hæmorrhage

Electrolysis was used next, directed with an electrode bougie, No 12 French, seven cells, ten minutes, which worked slowly through the stricture Patient felt each movement, but had no pain, nor was a single drop or a show of blood drawn Immediately after the operation he passed a steady, good stream of water, such as he had not seen for years

March 6 Patient since the operation has felt well, and the stream of water has increased in size Electrolysis, bougie No 14 French, thirteen cells, weekly for twenty minutes, worked well through the strictures Meatus is large, but nevertheless no guides would pass

The operation never causes pain or detention from ordinary business, which often surprises the patient A physician residing in the next county, here in Connecticut, who had been treated at my office, wrote me on his return home "I was much surprised to find that there was less irritation after the use of electricity than after the introduction of the simple sound The annoyance caused by the electricity was simply zero "

Many inquiries about particulars and details have led me to tabulate the following rules as a safe guide for practitioners who wish to adopt the treatment of electrolysis in stricture urethral

1 Begin the use of electrolysis carefully, do not cauterize, only absorb, in many cases the current of six cells will suffice

2 Regulate the power and current of electricity according to the susceptibility of the patient

3 Repeat seances in intervals not too frequent in succession

4 Do not grease the bougie with substances which are non-conductors, and would insulate

5 Wet your electrode sponges with hot water, keep the plates in the battery fluid only during the operation

6 Never use force with your bougie, never cause hæmorrhage

7 Do not operate while the urethra is in an acute or even subacute inflammatory condition, or when it is too painful

8 Use your battery fluid weak

9 Never use two bougies in succession with electrolysis during one séance

10 Practise at first only one method by absorption "*Weak currents, long intervals*"

Since my last article was written I have received many additional reports from eminent practitioners, that they either have adopted my method or have practised it with equal success Among others, Dr D P Farrand, of Detroit, Mich , writes me, October 6, 1882, that after reading my article he has operated with electrolysis in about eighteen cases of stricture, with very gratifying results A letter from Dr. Hutchinson, of Providence, dated September 28, 1882, gave me great pleasure, in which he says that he has operated in twenty one cases within the last six months, with unvarying success

J H Glass, of Utica, reports nine cases (New York *Medical Record*, May 12, 1883), all permanently cured He says in his paper "To the adoption in the main of his (Newman's) principles of treatment I ascribe the successful results obtained in the following cases" He concludes his paper as follows "By recent communications I find that in *no* case has there been any return of stricture symptoms This, I think, justifies me in the claim that a complete and radical recovery was effected in each case"

While these and many other reports of cases speak for themselves, so that at the present time 1,000 cases could easily be collected, the most fastidious medical sceptic ought to be convinced by my present report of one hundred cases cured without any relapse during three to eleven years' careful observation By such unique good results the method of electrolysis in the treatment of stricture of the urethra is fully tried and established, and every day brings new converts and makes new friends

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ERYTHROXYLON COCA

BY J L GRAY, M D

CHICAGO ILL

Erythroxylon coca is a bush or branchy tree, which grows to a height of six or eight feet, and much resembles the black thorn It is a native of the tropical valleys found on the east slope of the Andes, principally in Peru and Bolivia In many parts of these countries it still grows wild, but that which is used by the natives is chiefly cultivated

The seeds are sown in December and January in beds carefully protected from the sun When the plants are one and a half to two feet high they are transplanted, being either arranged in furrows, or set into holes, according to the situation of the plantation Suitable shade and moisture for the young plants are secured by sowing maize between the rows, or arbors of palm trees are constructed for purposes of shade

In May the shrub is covered with small, delicate, white blossoms, which are succeeded by red berries

When the shrub has attained an age of about two years it is ready for the first stripping The leaves are said to be ready for plucking when they break upon being bent The leaves are carefully picked and exposed to the sun in suitable places paved with stone, where they are left until thoroughly dried, great care being taken to avoid dampness These cured leaves form the coca of commerce They are carefully gathered into bundles, or "loaves" wrapped with banana leaves, and a large number of these "loaves" are finally wrapped in a coarse woolen cloth, or sometimes they are packed in fresh hides which upon drying contract, thus pressing the leaves into a small compass The leaves are now ready for use or transportation according to circumstances

In a good specimen the leaves should be unbroken, of a light-green color, with a faint odor of hay When chewed they break down easily and have a bitterish, sometimes followed by a sweetish, but not unpleasant taste They impart to water a beautiful green color, and the poorer the quality of the leaves, the darker green will be the color imparted to the water

The larger proportion of the immense crop is consumed by the natives who chew the leaves This is an almost universal habit among them, dating from a very remote period, and the leaf is still to the Indian of the mountains the support and in great measure the necessity of his life He always carries his *chuspa*, or leathern pouch, containing the leaves, and a gourd to hold powdered unslacked lime Three or four times a day he rests from his labor to chew the leaves, with which he mixes a small quantity of lime With the aid derived from this chewing of the leaves he is able to undergo hardships and toil which under ordinary circumstances would seem to be impossible That the effects of this habit of coca chewing are not deleterious to the health of the natives is in a measure proven by the fact that so many of them live to extreme old age and are able to endure such prolonged physical exercise and exposure with insufficient food and sleep Thus von Tschudi relates the story of a native who was employed by him in very laborious digging "During the five days and nights he was in my service he never tasted food, and took only two hours' sleep each night But at intervals of two and half or three hours he regularly chewed about half an ounce of coca leaves, and he kept an *acullico* continually in his mouth I was constantly beside him and therefore I had the opportunity of closely observing him The work for which I engaged him being finished, he accompanied me on a two days' journey of twenty-three leagues across the level heights Though on foot, he kept up with the pace of my mule, and halted only for the *chaccar* On leaving me he declared he would willingly engage himself again for the same amount of work, and that he would willingly go through it without food if I would but allow him a sufficient supply of coca The village priest assured me that this man was sixty-two years of age and that he had never known him to be ill in his life "

But, notwithstanding this, several travelers, more especially the German naturalist Poeppig, have given unfavorable accounts of the effect of this habit, not more so, however, than can be given of the excessive use of wine, beer, or distilled liquors

Dr Poeppig asserts that its first evil effect is to weaken the digestion, it then gradually induces a disease locally named the *opilacion*, biliary affections with all the painful symptoms which attend them in tropical climates, and, above all, costiveness, are frequent and severe The appetite becomes exceedingly uncertain, till at length the dislike for all nourishment is succeeded by an inordinate appetite for animal food, then dropsical swellings and boils come on

Von Tschudi says the chewing of coca gives a bad breath, pale lips and gums, greenish and stumpy teeth, and an ugly black mark at the angles of the mouth The unsteady gait, the yellow skin, the dim and sunken eyes encircled by a purple ring, the quivering lips and general apathy all bear evidence of the baneful effects of the coca juice when taken in excess But after summing up all his inquiries, he says " Setting aside all extravagant and visionary notions on the subject, I am clearly of opinion that the moderate use of coca is not merely innoxious, but that it may even be very conducive to health "

Dr Weddell reports two or three cases in which from excessive use there was produced "a peculiar aberration of the intellectual faculties characterized by hallucinations "

Mantegazza in 1859 was probably the first to carefully study the effects of the coca He used the leaves procured from Bolivia and experimented with the juice of the same obtained by chewing them His conclusions were

1 Coca has on the stomach a special stimulating action, by which digestion is very easy

2 In strong doses it increases temperature, pulse, and respiration, and may even cause real fever

3 Its use may be followed by a slight constipation

4 In doses of from one to four drachms it excites the nervous system in such a way that muscular exercise is followed by less fatigue, with a considerable resistance against external disturbing influences

5 In larger doses it causes hallucinations and delirium

6 It probably diminishes some of the secretions

From these experiments it would seem that coca promotes digestion by stimulating the acid gastric follicles, for when the drug is taken into an empty stomach it produces acid eructations

So far as I know the chemical composition of coca has not been fully studied But it is known to contain two or three active principles, the chief one being cocaine ($C_{17}H_{21}NO_4$) upon the virtues of which most of the properties of the drug depend This alkaloid was first discovered by Niemann in 1859, though Dr Weddell in 1853 thought he discovered in coca a principle similar to theine, and in 1857 an Irish chemist was reported as having discovered a principle similar to caffeine, and even up to the present time most observers believe cocaine to be identical in its effects with the alkaloids of tea, coffee, and guarana

Dr Alexander Bennett was perhaps the first in England to carefully study the effects of the drug After a large number of experiments on animals his conclusions are

1 The physiological actions of coca, tea, coffee, guarana, and coca are mainly if not entirely, due to their neutral principles

2 Cocaine, theine, caffeine, guaranine, and theobromine are powerful poisons, inducing a series of symptoms affecting the nervous, respiratory, circulatory, vaso-motor, and glandular systems, which terminate, if the dose be large enough, in death

3 These five principles are, to all appearances, identical in physiological action

4 In small doses, not ending fatally, these five substances produce, *a*, cerebral excitement not succeeded by coma, and, *b*, partial loss of sensibility

5 In large doses they produce
a Cerebral excitement
b Complete paralysis of sensibility
c Tetanic spasms and convulsions
d Death

6 They paralyze the entire posterior columns of the spinal cord, also the entire system of peripheral sensory nerves , but the anterior columns and the peripheral motor nerves are not paralyzed

7 They frequently produce convulsions of a clonic character, but occasionally they cause tetanic spasms , which latter are sometimes so severe as to induce opisthotonos

8 They do not produce muscular paralysis

9 They at first increase, then impede, and lastly stop, the respirations

10 They at first increase, and finally diminish both the force and frequency of the heart's contractions

11 They produce at first contraction, and afterward dilatation, of the capillaries and small blood vessels, with stasis of the blood, indicating first irritation, and subsequent paralysis of the vaso-motor nerves

12 They affect the temperature by first slightly lowering, and secondly increasing it

13 They usually produce contraction of the pupil

14 They produce an increase of the salivary secretion

15 They induce a peculiar form of tenesmus, accompanied by a copious discharge of clear mucus from the bowels

Dr Isaac Ott, in the New York *Medical Record*, September 6, 1876, gives the results of his experiments with the drug, finding that "coca, on man, increases the pulse, elevates the temperature, dilates the pupil, and decreases the amount of water used and chloride of sodium excreted by the kidneys"

The chief difference in the conclusions arrived at by these two eminent experimenters from their observations on animals, is in the effect of the drug on the eye Dr Bennett believes it to contract the pupil, while Dr Ott found dilatation of the pupil followed its administration , this latter we know, by subsequent investigation, to be the usual result

Most of the observers who have studied its effects on the elimination of urea, agree that it diminishes the quantity excreted, though Gazeau, in a series of experiments on animals, found the quantity increased

Schroff, Fronmuller, and Ploss believe the drug to have decided narcotic properties, while at the same time, from large doses, they noticed dizziness and tinnitus aurium, and by some observers (Anrep) a curious pendulum movement of the body of the animal has been noticed after large doses

From a consideration of the physiological effects of the drug it is evident that it possesses remarkable power over the nervous system, affecting not only the peripheral system of sensory nerves, but portions of the spinal cord and brain, and it is in disorders of the nervous system that perhaps the most benefit is to be derived from its use

If it be true, as is apparent from most of the experiments thus far reported, that it prevents tissue metamorphosis and is in a sense a nerve food, in that it stimulates and nourishes the nervous system without that reaction which follows the administration of all the other drugs of the class to which it belongs, it will prove to be of inestimable value to those persons who are obliged for long periods to subsist upon insufficient quantities of food and bear much exposure, as, for example, soldiers in the field, and sailors at sea It may also be of decided benefit to those travelers who ascend steep and high mountains

At this point the question arises as to the propriety or safety of placing the drug in the hands of the laity for miscellaneous use While there can be no doubt of the wisdom of the rule that no drug should be used promiscuously by the public, yet it is possible to conceive of circumstances under which the general use of a drug like coca might be beneficial It is doubtful whether the habit of coca chewing (among those who are not hereditarily predisposed to its use) would be formed even if its use were as free to the public as tea or coffee, and even if formed, I doubt whether the bad effects of the habit would be as marked as some writers would have us believe

But aside from the use of the drug as an economizer of nerve force, it is of much value to the physician in the treatment of disease

To enumerate all the diseases and conditions in which the drug has been administered would occupy more space than can be allotted to a paper like the present one But the drug has been used with most benefit in certain disorders of the nervous system, such as melancholia, neurasthenia, and like conditions in which there is a lowering of nerve power It has been used with very marked success in the treatment of the opium habit, some writers claiming for it almost a specific property

Dr McBean (*British Medical Journal*, March 10, 1877) has used the drug with apparently good results in typhus and typhoid fever, and other febrile diseases

Coca has in the last few months attracted the attention of the medical world on account of the local anæsthetic properties of its alkaloid, cocaine Most of the writers have noticed its benumbing effect on the mucous membranes, but the first to put this fact to a practical test was Dr Karl Koller, who communicated the results of his experiments to the Vienna Royal Imperial Society of Physicians, October 17, 1884 He found it to have decided anæsthetic properties on the eye, and since the publication of his paper it has been used by many oculists in the removal of foreign bodies, for the operation of strabismus, and the like Some unfavorable effects have been noticed by a few operators, but it is difficult to determine the cause It is possible that its careless employment may be partly responsible for these ill effects

Besides its use in operations on the eye, it has been successfully tried in minor operations on the mucous membranes, as about the mouth, nasal passages, urethra, vagina, etc One or two enthusiastic writers believe that in cocaine we at last have a drug which will control hay fever

But sufficient time has not elapsed since the first employment of this alkaloid to correctly estimate its virtues It is evident, however, that it is destined to prove a valuable addition to the means at our command for the relief of pain

I am inclined to believe that in coca we possess an agent which will be of much value in the treatment of neuralgias and asthma

After a careful and unprejudiced study of the properties of erythroxylon coca it is doubtful whether any one will question that in this drug we have perhaps the most important remedial agent at the command of the medical profession, and one that in its importance is destined to outrival opium, quinine, or the bromides in its medicinal virtues

In the preparation of this paper I have received much information from the following books and periodicals

Johnson—Chemistry of Common Life

Nothnagel and Rossbach—Materia Medica and Therapeutics

Encyclopædia Brittanica—Coca

Christison—Observations on the Effects of Coca (*British Medical Journal*, April 29 1876)

Koller—Use of Cocaine, etc (*Lancet*, December 6, 1884)

Mautegazza—On Coca, etc

MEDICAL PROGRESS

MEDICAL INSTRUMENTS, APPARATUS Etc

A Portable Electric Accumulator —At the Medical Society of London Dr Felix Semon demonstrated a portable electric accumulator, by means of which illumination, faradisation, cauterization and electrolysis can be readily accomplished This useful little instrument can be carried in the coat pocket It measures four inches by three inches by three quarters of an inch, and when completely charged only weighs eleven ounces Dr Semon showed how the accumulator could be charged by the surgeon himself, thus making sure that the battery should always be ready when wanted By joining three or four more of these accumulators together, very considerable electric power can be obtained As a means of illuminating the posterior pharynx, or vagina, or other cavity, the apparatus appears almost perfect The intensity of the light can be regulated to a nicety by means of a resistance coil in the handle of the instrument holding the incandescent lamp Those practitioners who use the laryngoscope, or who need the means of lighting a vaginal speculum in private houses, or even in the wards of a general hospital, will fully appreciate the value of an instrument which can be carried in the pocket, which is always ready for use, and which will render them independent either of daylight or darkness , for, on the one hand, it is very essential to have good illumination, and on the other, it is very convenient to have the room darkened, in order to see accurately either the larynx or other part under examination —*Medical Times*, February 28, 1885

MATERIA MEDICA AND THERAPEUTICS

Atropia in Chloroform Inhalation —Referring to death by syncope during anæsthesia by chloroform, Poirier (*Le Progrès Médical*) refers to the experiments of MM Dastre and Morat, in which they utilize the known powers of belladonna to paralyze the moderator nerves of the heart Experiments were first made on dogs, and the results obtained were so encouraging that Aubert, Gayet, and Tripier, surgeons of Lyons, were induced to try it on the human subject, and they obtained gratifying results The following solution was employed

Atropiæ sulph , $\frac{1}{14}$ gr
Morphiæ hydrochlo , 1½ grs
Aquædest , 2½ʒ

Hypodermic injection of a Pravaz syringeful was given from twenty to thirty minutes before the inhalation of the chloroform The advantages of this procedure, which is now daily practised in the hospitals of Lyons, are the following Security, greater rapidity with which anæsthesia is produced, absolute quiet of the patient, ease with which consciousness returns, and simplicity of results —*Midland Medical Miscellany*, March 2, 1885

Preservation of Chloroform — Professor Regnauld communicated to the Sociéte de Biologie, at its meeting on November 15, the results of the prolonged researches which he has been engaged in as to the preservation of chloroform From these it follows (1) That if absolutely pure chloroform be exposed to solar light, whether direct or diffused, it gives the first indication of decomposition after two days during the high temperature and intense radiations of July, and only after five days in December (2) The same chloroform may be preserved pure in contact with the air for more than fifteen months, on the condition of its being scrupulously abstracted from solar radiation (3) The same chloroform, exposed alternately to direct or diffused solar light, may be preserved for more than fifteen months, on the condition of its remaining in contact with an azotized atmosphere completely deprived of oxygen (4) It has been an error to attribute the changes which take place in chloroform to the presence of a certain amount of free chloral, the oxygen of the air suffices to produce them when the mixture of this gas and the vapors is exposed to insulation (5) Chloroform may be preserved unchanged, even when submitted to the simultaneous influence of air and light, by the addition of a hundredth, a five hundredth, or a thousandth part of ethylic alcohol (6) The intervention of ordinary ether ($C_8 H_{10} O$) also proves entirely efficacious, since a thousandth part suspended the action of oxygen and light during several months (from April 4 to November 15) —*Medical Times*, February 28, 1885

MEDICINE

A Case of Recovery from Carbolic Acid Poisoning —Mr William Hunter records the case of a woman 47 years of age who, an hour previous to her admission to the hospital, had swallowed a wineglassful of crude carbolic acid while under the influence of liquor Immediately after taking the drug, she experienced great burning pain in the mouth and throat, drank cold water in quantity and became unconscious in half an hour On admission she was in a state of profound stupor, and quite unconscious, her face and ears were very livid, pupils mediumly contracted, and her lips were somewhat whitened, but not markedly so , breathing rapid and labored, carbolic acid in breath, pulse 120, soft and feeble, but regular She could not be aroused, and the stomach was washed out by the stomach pump with a solution of washing soda A quantity of darkened, oily-looking fluid came away, which had an extremely strong odor of carbolic acid About ten ounces of olive oil were then poured into the stomach, allowed to remain a few seconds and then withdrawn The stomach was washed out with the soda solution three or four times With the third washing came what appeared to be pieces of detached mucous membrane, but were merely pieces of darkened mucus The symptoms increased in severity for about three hours, the breathing being stertorous, at the end of that time, however, the patient became restless and soon was able to sit up in bed and answer questions She complained of great thirst, and drank eagerly of milk with the white of an egg beaten up in it She vomited undigested meat smelling very strongly of carbolic acid The bowels moved, with dark stools having a very strong odor of carbolic acid The stomach at no time gave pain or uneasiness The urine was smoky and dark for a day or two—no albumen or blood The lips were swelled and œdematous, the voice husky Recovery was uninterrupted, and in eight days she was discharged from the hospital

It is probable that the quantity taken could not have been less than an ounce Undoubtedly the condition of alcoholism had arrested digestion and diminished absorption, and the presence of the undigested pieces of meat protected the mucous membrane of the stomach from contact with the acid A striking illustration of this diminution in the absorptive power of the stomach in such conditions is afforded by the case, related to Mr Hunter by Dr Affleck, in which a man, while very drunk, swallowed no less than twenty grains of morphia After the development of all the phenomena of opium poisoning he ultimately recovered with the use of the stomach pump Mr Hunter considers that the supposed danger from the use of the stomach pump in cases of corrosive poisoning is probably too much exaggerated, and that its use is decidedly preferable to that of emetics, the administration of which always means a certain amount of delay —*Edinburgh Medical Journal,* March, 1885

THE TREATMENT OF BROMIDROSIS OF THE FEET —MR J S STEWART praises highly Hebra's ointment for fœtid sweating of the feet, with or without excessive secretion, and gives his mode of its practical application Hebra employs the following ointment

℞ Olei lini
Emplastri plumbi liquefacti, equales partes
M fr ung

This he directed to be spread thickly over a piece of linen large enough to cover the sole and sides of each foot,—both feet, in the first place, to be carefully washed and dried Pieces of linen rag well covered with the ointment he directed to be placed between the toes, so as effectually to separate them and secure thorough application of the ointment Over this the sock or stocking could be worn with a light new slipper, and the patient allowed to pursue his or her ordinary calling This dressing to be repeated every twelve hours for ten or twelve days, the foot not to be wetted after treatment has begun, but wiped when necessary with a dry cloth, or washed with dry bran or other mealy substance, should any part become dirty or caked with old ointment, etc To insure success, the whole of the skin of soles and sides of feet and toes must be tanned by the process and gradually thrown off as brown leathery exfoliations in from two to four weeks All boots, shoes, slippers, etc , worn by the patient should be discarded, because if worn again the patient is reinfected in three or four months, and gradually becomes as bad as at first Stockings or socks should be very carefully cleansed and disinfected by heat or by steeping in a hot solution of perchloride of mercury (1 in 1,000 of water) for several hours before being washed

Mr Stewart's application of this method is to have the feet thoroughly washed in hot water, then steeped for a few minutes in a solution of permanganate of potash of the strength of from four to six grains in the ounce of water The feet are then dried, not to be again wetted until complete exfoliation of the tanned cuticle has taken place Hebra's lead plaster ointment is then thickly spread on strips of cloth about 1½ inch broad, and the foot covered from the toes back over heel as high as the malleoli with these, arranged and applied like a scultetus bandage Each toe should first be wrapped round with a strip of clean rag half an inch broad and thickly spread with the ointment This dressing should be renewed every twelve hours with fresh rag and ointment, for a period varying from ten to sixteen days, according to the severity of the case and the thickness of the heel skin In most cases the odor will be very much diminished by the end of the third day, and will not be perceptible by the ninth The shedding of the skin takes place *pari passu* with the growth of the new cuticle, and may not be completed until the end of the third or even of the fourth week —*Edinburgh Medical Journal,* March, 1885

A CASE OF SWEATING TO DEATH —DR ANDREW SCOTT MYRTLE describes the case of a hale, active, intelligent man, æt 77, who, while in the full enjoyment of health on one day, on the next was taken with flying pains in the right hip, thigh and foot, for which he kept his bed for three weeks, there was no fever at all, and all the functions were performed regularly, but the pains were increased on the slightest movement He obtained complete relief from occasional doses of the salicylate of soda (10 grains) About this time he began to perspire freely The perspirations came on in a most peculiar way suddenly every duct opened and the sweat poured out, this would go on for ten minutes or ten hours, but invariably stopped as suddenly as it began, everything on and about him was simply saturated The urine was healthy in all respects, and continued so till death, with all the loss of fluid by the skin the secretion of the kidneys was never affected in quantity In a few days the sweat became most offensive, giving the same heavy smell as that given off by a horse after a smart gallop on a hot day Oddly enough his son was attacked with all the symptoms of hay fever when he entered the room, just as he is affected on going into a stable or hay field, this smell was given off only occasionally, and chiefly during early morning This condition of things continued for some twelve weeks, when his strength began to fail, and his breathing occasionally became labored, still he took his food, felt comfortable, performed all his functions, and passed good nights At the end of the fourteenth week he sank from exhaustion, perspiring to the end Before death he was as clear in his mind as he ever was

The treatment embraced first, the salicylate of soda for the relief of the rheumatic pains, then arsenic, cinchona, and sulphuric acid during the day, with quinine and belladonna at bedtime, rubbing with warm towels, and sponging with a solution of salt, eau de Cologne, and vinegar once a day As the arsenic appeared to disagree, Warburg's tincture was substituted for it Ergotine was given in two three-grain doses at an interval of eight hours, and produced a toxicological effect but no therapeutic power A dose of atropia, one-fiftieth of a grain, also acted toxicologically

The cause, according to Dr Myrtle, was from a paresis of the terminal nerve filaments which preside over the healthy function of the sweat glands and ducts, these filaments having become weakened by exposure to alternate heats and chills to which the patient had exposed himself for months in his open workshop with a gas engine Dr Dreschfeld, who saw the case in consultation, considered the lesion as located in the sweat nerve center, and that the sweating and aguish attacks were due to an alternate paralysis and irritation of that centre from the presence of rheumatic poison in the blood Analysis of the perspiration gave no useful information —*Medical Press and Circular*, February 25, 1885

EPIDEMIC ICTERUS —Surman, in the *Berliner klin Wochenschrift*, page 20, January 12, 1885, describes an epidemic of icterus as occurring among the employes of an iron works and ship building yard in Bremen The works are situated on the Weser, stretching down to the river The subsoil is sand, and has never been inundated No phosphorus is employed in the factories In the yard there is a well which has been used since 1845, whose waters have been ascertained from time to time to be chemically pure and wholesome The closets are arranged on the pail system (Eimer system) All possible care is taken to insure their removal and disinfection by means of carbolate of lime During the winter of 1883–4, 1,200 to 1,500 persons were employed at the works, of whom a few obtained board and lodgings in neighboring sheds, while the rest took their meals at their own homes, or brought their food with them in the morning Until the years in question, no epidemic of icterus had ever occurred in this establishment

At the end of October the first cases of catarrhal icterus occurred, which heralded the epidemic In a month the cases had increased to 33 During December, 137 fresh cases were noted, in January, 14, in February and March, 5, and in April, 2, in all, 191 cases before the epidemic ceased All these came under treatment, but, in addition, there were many cases too mild to call for medical aid During the same period only a few isolated cases of catarrhal icterus were recorded in the town at large

In all cases the jaundice was preceded by symptoms of a gastric catarrh which generally lasted for about eight days, but occasionally for weeks Constipation was the rule, but diarrhœa was sometimes observed When jaundice began, the subjective symptoms decreased in severity in most cases, but in some they became more grave The jaundice usually established itself fully in the course of twenty-four hours Constipation, when it had existed previously, gave place to a violent diarrhœa Itching of the skin and yellow vision were observed—the former frequently, the latter seldom In all cases there was more or less prominence of the epigastrium, which was tender to the touch No marked enlargement of the liver occurred, nor was tumor of the gall bladder to be detected The whole course of the disease was afebrile, in many cases there was considerable slowing of the pulse The fæces, early in the attack, were clay colored, but subsequently—in many cases in a few days—acquired their normal color, notwithstanding the persisting yellowness of skin and conjunctivæ The urine presented the icteric coloration, but no albumen The bile-color tests gave positive results, but bile-acids were not always detected Only one case of cholæmia occurred, with severe head symptoms and deficient diuresis, and consequent ascites and anasarca Even this patient got well in five months No fatal case is known to have happened The jaundice varied in different cases from light citron-yellow to yellow-brown, or olive Some cases were over in eight to fourteen days, the majority lasted four to six weeks, and a few were even longer, and were characterized by great emaciation and feebleness The only treatment attempted, in addition to regulation of the diet, was symptomatic

As to the etiology of the epidemic, the only circumstance which was at once peculiar to this establishment and common to all the members of it, was a general re-vaccination, which took place on August 13th, 1883, in consequence of isolated cases of small pox having occurred among the work people Humanized glycerine-lymph was supplied for the purpose by a local chemist, who had obtained it from some third person The usual vaccination lancets were used in the common fashion of incision After every operation the instrument was cleaned in one per cent carbolic solution Most of the inoculations failed to take, so that even of those who subsequently fell ill of jaundice a majority had been re-vaccinated in vain The success or non-success of the re-vaccination seemed to have no influence on the development of the jaundice Of 1,289 persons re-vaccinated, 190 persons had jaundice Of 87 persons re-vaccinated away from the works by other physicians, with other lymph, *no* person had jaundice Of 500 people admitted to the works during the epidemic, after the period of re-vaccination, and not themselves re-vaccinated, *no* person had jaundice Of those work people (few in number) who left the works for various reasons immediately or soon after the general re-vaccination, themselves having been re-vaccinated, 9 persons are certainly known to have had jaundice —*Medical Chronicle*, Mar, 1885

On the Transmissibility of Malarial Infection —**Mariotti** and **Ciarrochi** (*Lo Sperimentale*, p 623, December, 1885), have been experimenting with the blood of malarial subjects injected into the systems of patients who had either not had malaria, or had suffered from it so long a time previous that no trace of the disease remained The precaution was taken of registering their temperatures for a month before the experiments commenced, and the blood of the subjects of experiment was submitted to accurate microscopic and spectroscopic analysis

The arms of the malarial subject, and of the experimental subject having been first washed with a weak solution of corrosive sublimate, a Pravaz syringe, sterilized at a temperature of 150° C and kept up to the moment of experiment, sealed in a glass tube, was used to withdraw the malarial blood, which was then injected into the experimental subject, first into the subcutaneous tissue and then into a vein The quantity of blood injected was each time about a gramme, taken either in the apyretic state preceding an attack, or in the febrile access In the choice of blood those cases only were taken where the alterations in the blood were very distinct

The experimental subjects were (1) A youth, aet 16, suffering from transverse lumbar myelitis (2) A man, aet 32, affected with sclerosis in patches (3) A man, aet 47, who also had sclerosis in patches These three had not previously had malaria (4) A man, aet 60, affected with hemichorea This man had had malaria ten years before, but not since The subcutaneous tissue was the first site of injection, but no results following, the injections were made direct into a vein In all, malarial fever, amenable to quinine, followed, though not perhaps from the first injection of malarial blood

The conclusions arrived at were (1) Malaria is transmissible from man to man by inoculation of malarial blood (2) So far as these cases go, it would appear that subcutaneous injection is less effective than intravenous (3) The quantity of blood injected should amount to at least one Pravaz syringeful (4) In whatever period of malaria the blood is withdrawn, fever is produced in most instances (5) The rapidity with which the induced malady appears depends often on the quantity of blood injected, and on the individual resistance of the experimental subject (6) In the blood of the subjects of induced malaria the characteristic alterations of malarial blood can be made out in a relatively short time (7) The induced type of fever is often that of the inducing, not only in a clinical, but also in a therapeutic sense —*Medical Chronicle*, March, 1885

On the Musical Sounds of the Heart, and the Mode of Development of Pseudo-Cardiac Sounds —**O Rosenbach** (*Journal de Médecine de Bruxelles*) describes the rhythmic musical sounds which are audible over the region of the heart, as being either cardiac (endo- or pericardiac) or pseudo cardiac These last come from the relations of the heart to the neighboring organs

The cardio-pulmonary sounds are frequent, they are dependent upon currents of air produced in that part of the lungs which is on a level with the apex of the heart, and of the left ventricle, and determined by the changes in volume of the heart and the movements of its apex, they have a whistling, blowing, or rattling sound (*sifflant*, *soufflant*, *râlant*), (*schlurfend*, *hauchend*, *pfeifend*) They are characterized by their inconstancy, a modification of the respiration (forced inspiration and expiration), cough, change of position, and pressure exercised on the chest modifies them and causes them to disappear

The pseudo-cardiac sounds may also originate in the veins (right jugular vein, innominate vein), continuous sounds being produced with increased or diminished rhythm When they are of a certain degree of intensity, they are audible at the precordial region (blowing and buzzing sounds, rarely whistling) They are ordinarily systolic, the diastolic sounds are produced ordinarily at the commencement of the diastole, by the horizontal posture, the arrest of respiration, or by the compression of the jugulars in the neck, these sounds lose their intensity or cease altogether The writer has sometimes heard pericardial musical sounds of a whistling character, they were dependent upon deposits on the smooth surface

As to the musical noises which originate in the cavities of the heart, the writer considers as problematical their production by an abnormal arrangement of the tendons, and that they are dependent upon perforation of the arterial valves, or upon excrescences which transform the openings into simple slits like the openings of a flute on the smooth surface —*Archives Médicales Belg*, January, 1885

SURGERY

Torsion of Arteries —Professor Tillaux, in a recent clinical lecture at the Hotel Dieu, reported in the *Gazette des Hôpitaux* for February 10, explained his reasons for his great partiality to torsion as a means of preventing hæmorrhage "I have employed torsion since 1871, and, as you may suppose, in the various hospitals to which I have been attached I have applied it to a very great number of arteries of all sizes, and this long practice of it has only served to confirm my early impressions Am I, then, opposing the ligature in wishing to substitute torsion for it in all and under all circumstances? Not at all The ligature is an excellent and a precious means of hæmostasis, but torsion is a still better, at least in my opinion But, supposing the two procedures to be of equal value, is it nothing, then, to be in possession of two methods in place of one for rendering us aid? The only instrument which I employ differs only from the ordinary torsion forceps by having longer and broader teeth, so that it may be adapted to the calibre of all arteries, even the largest The extremity of the artery being exposed and seized as if to apply a ligature (but seized in its entire breadth), I twist this until the extremity is detached—the manœuvre of the ligature, in fact, short of the thread Torsion so executed is still more simple than the ligature, and suppose a surgeon without assistance, in the country, for example, or having to do with a very deeply situated artery, torsion, I do assure you, would prove a great resource to him What is the mechanism of hæmostasis by means of torsion? It is most simple After a number of twists, varying according to the size of the artery, the inner and middle coats of the vessel are torn, the edges of the division approaching and touching each other, and completely excluding the lumen of the artery, in the same manner as the sigmoid valves do that of the aorta The external coat has not yielded, and the torsion is continued until it is detached, the twisted artery then terminating in a kind of small corkscrew, which also contributes to the obliteration of the vessel Does torsion confer as great a security as the ligature? As regards primary hæmostasis we may, perhaps, reply that the ligature affords most security The torsion may have been incomplete, that is, not comprising the whole breadth of the walls of the vessel, the middle coat may, perhaps, have undergone change and become deprived of its retractile properties But, observe that this is a point of but small importance, for if the hæmostasis is not complete you see it at once, and at once resort to the remedy, just as when a ligature has been badly applied But when primary hæmostasis has been secured, does torsion give more security against secondary hæmorrhage than the ligature? I affirm that it does In order that this may be produced, the artery must untwist itself First, it is improbable that an artery which has remained twisted during the duration of the dressing should afterward untwist But I add that this is impossible, for physics teaches us that when an elastic body is made to exceed the limits of its elasticity it is powerless to return to its former condition. Now, the elasticity of the middle coat is not a vital property, but a property of the tissue which we can bring into play just as well in the dead body as in the living, as I have demonstrated by a number of experiments made at Clamart When you remove one of Esmarch's tubes the blood is precipitated into the artery and strikes against the twisted end The retraction of the two arterial coats opposes the issue of the blood, for no clot has yet formed Suppose that a ligature became detached under these conditions, that is, before the clot has formed, or is insufficient, should we not have secondary hæmorrhage? Immediately after the operation the clot commences to form at the twisted end, so that it is only rational to believe that if hæmorrhage is not immediately produced at the twisted end of the artery, when no clot exists, it will not be produced ulteriorly when a clot has become developed Strong in the belief in the theory which I have summarily explained to you, and in a practice now a long one, I affirm that torsion of arteries is an absolute protection against secondary hæmorrhage, which constitutes its advantage over the ligature"—*Medical Times*, February 28, 1885

Acute Pancreatitis in Childbed—Dr R Haidlen relates the case of a primipara, thirty-three years of age, who had suffered during pregnancy from gastric disturbances and headache, and during the latter part of this period from severe colic and slight symptoms of peritoneal irritation Owing to weak labor pains delivery was effected with the forceps During the following three weeks the progress of the case was normal, but at the end of this time there were occasional hæmorrhages, and several attacks of pain in the gastric region The last of these was very severe and accompanied by vomiting There was no fever, the pulse was 100 and regular There was great tenderness on pressure over the pit of the stomach The intellect was unimpaired The urine was voided normally, but in small quantities, the bowels did not move Finally the pain in the epigastrium became very severe, meteorism set in, the extremities became cold, and the patient died At the autopsy the pancreas was found to be enlarged in all its dimensions and of a brownish-red congestive color, the result of acute inflammation There was no marked peritonitis, and the other organs were normal—*Schmidt's Jahrbucher*, January 29 1885, *Medical Record*, April 18, 1885

THE
Journal of American Medical Association.
PUBLISHED WEEKLY

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Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO, ILLINOIS

SATURDAY, APRIL 25, 1885

THE EXTIRPATION OF THE THYROID BODY

Notwithstanding the amount of labor that has been expended upon the subject, but little is known as yet concerning the functions of the thyroid body It has been classified among the blood forming glands, and it is admitted by some that it may perform the functions of the spleen after that organ has been extirpated Kocher, Reverdin, Baumgarten, and others have observed that extirpation of the thyroid gland is followed, in the human being, at a more or less late date, by a chain of peculiar symptoms to which they have given the name cachexia strumipriva, it is characterized by a semi-idiotic state, which is almost always associated with anæmia According to Reverdin, however this condition tends to disappear in time

The pathogenesis of cachexia strumipriva is variously explained Reverdin, and those who follow him, attribute the symptoms to some alteration of the great sympathetic, that is to say, they hold that the thyroid body represents an important centre of action in vaso-motor innervation Kocher and Baumgarten hold that the symptoms are due to the reduction of the amount of oxygen inspired, which eventually causes disturbances in the cerebral circulation The obstruction to the entrance of the proper quantity of oxygen is purely mechanical, being caused by atrophy or softening of the trachea But the question is still unsettled, and with the present want of correct information it is not likely to be definitely determined at a very early date

Much experimental work has been done in this field According to Zesas, whose observations were in accord with the clinical observations of Credé, the function of this gland is supplementary to that of the spleen, as would be supposed, therefore, an animal cannot undergo extirpation of both these glands with safety Tauber and Tizzoni, however, deny that there is any physiological relation between these two organs

SANQUIRICO and CANALIS have recently published the results of their experimental work upon the relations between these organs, and it seems that the results obtained by them go to confirm the statements of Tauber and Tizzoni They have as yet published only a preliminary communication, giving the results obtained by experiments on thirteen dogs In seven of these both lobes of the thyroid were extirpated at the same time, in two both lobes were removed at intervals of from six to twenty days, and in four a small portion of the gland was left Their results may be stated as follows When both lobes were removed, either from young or adult animals, the operation having been performed with all possible precautions both to prevent death and to obtain union by first intention, the animals died within from four to sixteen days Death was almost invariably preceded by an unvarying chain of symptoms, after about twenty-four hours, or longer in some cases, the dogs commenced to present the following phenomena an unsteady gait, refusal of food, difficult deglutition even when attempts were made to swallow liquids At the same time, or later, and not in all cases, there were dyspnœic symptoms, with moaning and loud respiration, which sometimes persisted until death Tracheotomy was found to be unavailing in relieving the dyspnœa There was great somnolence, the dogs were very restless, making abnormal movements of the head At a still later date there were muscular tremblings, convulsions which were general or in the form of partial clonic contractions of the limbs, commencing in the posterior limbs, they were either spontaneous or excited by repeated stimulation In one case the convulsions took the form of tetanic contractions with trismus and opisthotonos

The locomotion of the animals was very peculiar they wabbled in their gait as though affected with vertigo, so that they could not walk in a straight line, but described arcs of a circle, and finished by falling to the ground At this time their disquietude was always greater, in walking they invariably ran against obstacles placed in their crooked path, as though they were unable to control their movements As a rule the animals neither ate nor drank for several days before death In three of the cases a considerable fall of temperature was noticed just before death, in none of the animals was there an elevation of temperature Artificial alimentation seemed to have no effect whatever on the progress of the condition In some of the cases purulent conjunctivitis developed, complicated in one case by a perforating ulcer of the cornea, whether this was due to the condition itself or to external influences it was impossible to determine Examination of the blood revealed variable modifications, perhaps physiological in some cases, which were proportionate to the number of morphological elements Careful examination of the urine gave entirely negative results in every case

The autopsies showed marked anæmia of the white and gray substance of the brain, with a more or less marked œdematous state In some cases there was great congestion of the liver and dilatation of the mesenteric vessels, which were full of blood, in one case there were small punctiform extravasations of the intestinal mucous membrane It was impossible that these phenomena could be due to the absorption of septic material, or to alterations of the vagi and recurrent nerves by irritations dependent upon the operative procedures, for the same phenomena were observed in those cases in which healing was by first intention

Sanquirico and Canalis, in summing up the results of their experiments, feel justified in drawing the following conclusions 1 Total extirpation of the thyroid is always fatal in dogs, whether the spleen has been removed or not, 2 Incomplete thyroidectomy is practically followed by negative results, 3 There are no functional relations between the thyroid gland and the spleen, 4 The fatality of total thyroidectomy cannot be attributed to quantitative modifications of the blood elements, since they are neither constant nor sufficiently severe, 5 While these experiments give no data as to the function of the thyroid gland, they show that it has no hæmatogenous action, and cannot, therefore, be considered as a substitute for the spleen, the most that can be said is that it seems to occupy an important place in the animal economy, and in all probability is in intimate relation with the central nervous system

This paper had already been written when Schiff published his experiments on the same subject, it will be seen that these experimenters, working independently, arrived at practically the same results

IS TRUE CROUP DIPHTHERITIC?

Such is the question which for years has proved a veritable apple of discord among pathologists and clinicians, and Virchow has recently cast it anew into the midst of the Berlin Medical Society The name of this renowned pathologist lends such weight to his opinions that we subjoin some abstracts from his paper, as reported in the *Berliner klinische Wochenschrift*, No 9, March 2, 1885, in order that our readers may know where he stands in regard to this important subject

In 1847, he announced the proposition that, if one would divide the affections of the mucous membranes into comprehensive groups, he must distinguish three definite and distinct anatomical conditions, viz catarrh, croup, and diphtheria

Diphtheria is a process of mortification, seated in the substance of the tissue itself, and therefore creates no false membrane upon the surface Yet, when apparently throwing out an exudation, it does so only by causing an exfoliation of the surface, and loss of substance in every case of such exfoliation In a word, in most favorable cases, this process occasions ulcerations of the part affected This view, which he still holds, occupies a foremost place among those conclusions at which he has arrived from observation

Concerning the cause of this morbid process he holds the view that this is a parasite He is of the opinion that these parasites have never been observed in any considerable numbers in croupous membranes They first appear in the superficial layers, rapidly penetrating into deeper parts, not only into the submucous, but even into the muscular layers, or still more deeply They thereby cause extensive irritation and swelling It must not be forgotten that their starting point is in the surface, whence they work their way into the subjacent parts Hence the assumption is easy, that instead of proceeding from the blood, as was once held, they are the product of contagion

In contrast to this condition are the fibrinous exudates that merely rest upon the surface Huge strips of false membrane that are often detached from the inner surface of the trachea and larynx, never leave an ulceration behind

Here, therefore, are two entirely distinct processes One is a something which has its seat on the surface, without, however, the surface taking any intimate part in the process This something becomes detached and cast off, yet leaves no trace in the shape of an ulceration The other is a something that has its seat in the superficial tissues, causes their death and consequent exfoliation, and leaves a loss of substance in its wake

However, in taking the ground that croup and diphtheria are distinct processes, he would not assert that there may not be a diphtheritic laryngitis, but he would assert that in diphtheritic croup, there is no false, that is, fibrinous membrane To be sure, shreds of tissue may be found which at first glance look like shreds of false membrane Yet on careful inspection, these are seen to be portions of necrosed and exfoliated mucous membrane The evidence of necrosis and exfoliation of tissue is that on which he would base a differential diagnosis If one would not accept this, he knows of nothing else whereupon to base a difference

These are emphatic utterances, and leave no doubt as to Virchow's position The controversy concerning the nature of croup and its relations to diphtheria has been waged long and hotly, and is not much nearer settlement now than when it first began In the last century English observers were already at variance on this point Home and Johnstone both wrote treatises upon it, maintaining the non-identity of the two affections In the early part of this century, Bretonneau strenuously supported the view that they were manifestations of one and the same morbid process French opinion has seemed in the main to indorse the conclusions of Bretonneau, although the opposite has been ably maintained by MM Bricheteau, Desruelles, Emangard, and Blaud, and in the prize essays of MM Vieusseux and Jurine of Geneva Likewise in Germany, both theories have found ardent adherents Niemeyer, Oppolzer, Letzerich, and others have coincided with Virchow, while Wagner asserts "there is no sharp line of distinction between croup and diphtheria, but that in both the membrane is formed by a peculiar metamorphosis of the epithelial cells" Oertel and Klebs regard the two affections as expressions of the same morbid cause Steiner, in *Ziemssen's Cyclopædia of Medicine* says

"The attempt to distinguish croup and diphtheria as two entirely distinct diseases has been unsuccessful Indeed there are many good reasons for supposing that these two affections are only varieties and modifications of one and the same process"

In England, opinion is still divided West and Reynolds' Systems of Medicine uphold the non-identity of the two, while Eustace Smith, in his admirable work on "Disease in Children," expresses himself decidedly as of the opinion that in croup, diphtheria has preceded it, although it may not have been detected In our country Meiggs and Pepper coincide with the English writer just mentioned On the other hand, Austin Flint, Sr , J Lewis Smith, and others take the opposite ground

Thus it is evident how diverse are the conclusions of the ablest minds of all countries One party maintains that membranous or true croup is a local inflammatory process, always produced by exposure to cold or wet, whereas the other is as positive that it is diphtheritic It would seem that the Latin proverb, *via media, via recta,* is particularly applicable to this discussion, and that in some instances croup is primary and independent of diphtheritis — that in others it is secondary to that disease

SANITATION BY FIRE

In the *Sanitarian* of February, 1885, is an article on "The Ultimate of Sanitation by Fire," by Col J M Keating, of Memphis Sanitation by fire is a matter which interests hygienists in all parts of the world, it seems to be the ultimatum of the disposal of waste as a necessity, and as the means of thoroughly disposing of the decaying material in crowded localities it merits the greatest attention The author of the above-mentioned paper proposes to prove that when people do not complain of polluted water, as is the case in most cities, they do of sewer gas, that when they have a reasonably good system of sewerage, as that of Waring, they have the question of the disposal of the sewage to confront that rivers are being filled with sewage, which kills the natural inhabitants thereof and pollutes the water for a great portion of the population, that, as privies and cesspools are to be condemned because they saturate the soil, sewers are to be condemned for the same reason in some cases, and in others because they throw off sewer gas into dwellings and contaminate rivers and docks, in a word, that all present plans of disposal of sewage are defective in that they do not deal with the final disposition of the material, and that cremation is a "finality of sanitation, and that all other methods are so many makeshifts"

Colonel Keating devotes about ten pages of his article to a review of the sanitary state and sewage disposal of some of the principal cities of the world, and most of them make a very poor show as regards drainage and the disposal of waste It is sufficient to show, however, that excremental matter, whether as sewage or poudrette, or in any of its diluted or chemically prepared forms, is dangerous to health "Fire is the only means of utterly destroying it and solving the question of its final disposal beyond any power of harm" Further than this, he argues strongly in favor of cremation of the dead, not only should the privy, the cesspool, the midden, the sewer, and all other methods for the disposal of the waste of the living be abolished, but also the graveyard and the cemetery as well "The crematory must take their place Within two centuries the death rate of London has been reduced by successive steps in sanitation from forty two to twenty-two per one thousand" This is the result of incomplete methods of disposal of waste, it is not difficult to imagine what would be the result could the Shaw system of cremation be carried out as regards everything that may entail danger to health It would be well were some of our cities in this country to erect a crematory similar to that now in use in London, constructed in 1883 by Mr George Shaw, for the destruction of the refuse and street wastes of that city Not only would it be far less expensive in the end, but it is scarcely possible to think that the health of the city would not be better by far. The description given by Colonel Keating of this crematory is very interesting

At the close of his paper the author concludes that the cremation of excreta and all household and street wastes would preclude the possibility of the return of such wastes in any deleterious form, as is now the case everywhere, it would save to the cities two-thirds of their present water supply, and thus increase the quantity for personal sanitation, it would put a stop to soil saturation and sewer gas, would reduce scavenging to the minimum expense, and would obviate the nuisances of defective plumbing In a word, there is not a question directly or indirectly connected with these matters which it would not solve

PLASTIC OPERATIONS FOR SPINA BIFIDA

At the meeting of the Clinical Society of London, on March 27, Mr Mayo Robson, of Leeds, described four cases of spina bifida on which he had operated, exhibiting two of the patients The first case upon which he operated was described in the *British Medical Journal* for March 24, 1883, it died one year after the operation from teething convulsions At the site of the tumor there was only a linear scar Of the cases presented to the society one was that of a sixteen-year-old girl, who had had the tumor tapped repeatedly, and at the time of the operation was apparently sinking from exhaustion After reflecting the skin by a crucial incision, Mr Robson excised the sac, and the cavity was drained for a few days The patient was discharged cured at the end of twenty-four days, with the wound quite healed, and only a scar where the tumor had been

The second patient shown was a child, aged seven, the skin was dissected from the sac, and the redundant sac and integument removed, the meninges were sutured with catgut, and the skin with wire The patient was discharged cured in thirteen days

All of these operations were performed under strict antiseptic precautions, a eucalyptus atmosphere being used instead of the usual spray Mr Robson called special attention to the principle of closing the meninges by bringing together two serous surfaces, as in peritoneal surgery, to the great importance of employing the strictest antisepsis, to the value of this method in cases in which other forms of treatment are not available, as when the sac is thin or the opening into the spinal canal is large, to the possibility of transplanting periosteum, and its capability of surviving, he thought that periosteum from a recently amputated limb would give good results In one case the sac was acutely inflamed, but complete removal, with efficient drainage, effected a cure

Mr Robson has given us the most sensible operation yet proposed for the treatment of spina bifida, certainly the method of attempting to cure the affection by means of injections is not to be compared to it, and there is no apparent reason why it should not be successful in a large majority of cases, provided his suggestions be carried out When the spinal cord or the nerves are blended with the sac, which cannot always be ascertained until the skin is dissected from the membranes, he advises excision of portions of the redundant meninges at one or more points between the nerves, replacing the nervous structures in the spinal canal, and bringing over the skin cover, keeping up free drainage between the membranes and integument Should this not be feasible, the membranes may be punctured, and the collapsed sac, with the nerves intact, placed in the canal, the skin covering being made as before Of course a silver or leather shield should be worn over the site of the operation, both to protect the parts from injury, and to prevent stretching or giving way of the scar

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF THE STATE OF TENNESSEE

Fifty-second Annual Meeting, April 14, 15, and 16, 1885

The Medical Society of the State of Tennessee met in annual session in the Hall of Representatives in the Capitol at Nashville, on April 14, the President, D D Saunders, M D, of Memphis, in the Chair

A number of valuable papers were read, among others one on the

CAUSATION OF CHOLERA,

by Dr J W Penn, of Humboldt, in which the position was taken that no one ever had cholera who used pure cistern or free stone water

Dr Thos L Maddin, of Nashville, agreed with the essavist, and gave the experience of Nashville as proof of the truth of his *remarks* In Nashville cases were limited to those who used hydrant (river), well, or spring water, whilst those who used pure cistern water did not take the disease He did not hold that impure water caused cholera but that it prepared the system to receive the poison, impure limestone water so impairing the vital forces that they do resist the *materies morbi* when introduced

A paper by Dr R F Evans, of Shelbyville, on

MALARIAL REMITTENT FEVER

provoked an animated discussion

Dr D D Saunders, of Memphis, maintaining that the term *Typho-Malarial* fever should be abolished

Dr O H Menees, of Nashville, held that it was a good and descriptive term

Dr C C Fite, of Nashville, held that the fever under consideration was not typhoid or malarial or typhoid-malarial fever, but a distinct disease, due to decayed vegetable matter, and that it had this as its specific cause, just as there was a typhoid germ and a specific cause for malarial fever arising from some unknown product of vegetable decay caused this type of fevers He spoke of cases in his practice which supported the theory, and referred to published cases of the same character

A resolution was adopted by the society memorializing the president to place the

EPIDEMIC FUND IN THE HANDS OF THE NATIONAL BOARD OF HEALTH,

and indorsing the action of other medical and sanitary bodies in this matter

Dr J W Sharber, of Spring Hill, exhibited a specimen of an

EXTRA-UTERINE PREGNANCY,

in which an eight-months fœtus was carried for twenty-nine years

Several committee reports were made, among others one in regard to the failure of the medical bill before the recent legislature Tennessee has no medical law of any kind, and the profession not being united on the question, it failed for want of a constitutional majority

One of the features of the meeting was a *Calisthenic dumb-bell and wand drill* at Ward's Seminary, which was much admired by the physicians present Physical education has been too much neglected in the South, and it is gratifying to find that this large and prosperous female seminary not only cultivates the mind and morals, but the body also

Memphis was selected as the place for the annual meeting in 1886

The following were elected

OFFICERS FOR THE ENSUING YEAR

President, Thos L Maddin, M D, of Nashville

Secretary, C C Fite, M D, of Nashville

The following were appointed

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Drs Van S Lindsley, Duncan Eve, C C Frost, Deering J Roberts, W M Vertrees, J B W Nowlin, W F Glenn, W D Haggard, J W Maddin, Jr, J F Grant, C S Briggs, and O D Menees, of Nashville, D D Saunders, W B Rogers, J E Black, and W W Taylor, of Memphis, J B Murfree and J H Washington, of Murfreesboro, N F Raines, of White Haven, W D Somers, of Colliersville R F Keys, of Eagleville, F B Sloan, of Cowan, W F Clay, of Bellbuckle, R F Evans, of Shelbyville, W Harris, of Somerville, J W Sharber, of Spring Hill, W B Townsend, of South Pittsburg, T K Powell, of Dancyville, A J Swaney, of Castalian Springs, A J Walker, of Friendship, A B Tadlock, of Knoxville, T J Haffel, of Trenton, A J Welden, of Paris Landing, W H Whittemore, of Haleys, I F Wright, of Clarksville, and D E Nelson, of Chattanooga

STATE MEDICINE

MICHIGAN STATE BOARD OF HEALTH

The annual meeting of the Michigan State Board of Health was held at its office in Lansing, Mich , April 14, 1885

THE MEMBERS PRESENT

were John Avery, M D , President, Arthur Hazlewood, M D , C V Tyler, M D , Prof V C Vaughan, M D , and Henry B Baker, M D , Secretary

This being the annual meeting the

PRESIDENT'S ADDRESS

was the first order of business

The President said that he had prepared no formal address He thanked the members for the many courtesies shown him during his administration He had no change of policy to recommend to the Board, no marked change, he thought, is desirable The work is well understood, and is in a satisfactory condition The Board must be governed somewhat by emergencies, as they arise He could congratulate the Board on what it had achieved He thought it would be wise to continue holding sanitary conventions in different places in the state He spoke of the probable advent of Asiatic cholera, and thought that it might tax the Board to its utmost The Board had done all it could to prepare to resist the disease, but should be ready for further action If the bill before the legislature becomes a law, the duties, as well as the powers of the State Board of Health to prevent and restrict that disease will be increased It would be desirable to continue to advise police regulations in cities, adapted to preventing unsanitary conditions and the introduction or spread of cholera, and the health officers of cities, villages, and townships of the state, especially as they are just now being changed, many being entirely new in that office, should be instructed in regard to their duties

The Secretary read a report of

THE WORK OF THE OFFICE

during the past quarter Of the 760 pages of copied letters sent out, 153 pages were modified circular letters to local health officers in regard to prompt action to restrict contagious diseases In connection with those, about 10,000 copies of the documents on the restriction and prevention of certain contagious diseases, and on the duties of health officers, have been sent to health officers for distribution to neighbors of families in which such contagious diseases have been reported

Since the last meeting of the Board, the outbreak of smallpox at South Boardman had been suppressed During the past quarter there had been one case of smallpox at East Saginaw, two cases in Grand Rapids (confined to one house), the first of which was a commercial traveller, who thinks he was exposed on the train between Boston and Grand Rapids About the time he was exposed it is known that a man having smallpox passed through Michigan on the Michigan Central railroad, from Ontario to Chicago, *en route* for Manitoba At Battle Creek there have been four cases, with one death, from smallpox, the contagion of which is supposed to have come from a brakeman on the Chicago & Grand Trunk railroad, who stopped with a family in Battle Creek while he was slightly sick, and who thinks he contracted the disease on the train near Chicago Two members of this family in Battle Creek visited friends in Bellevue, in Eaton county, and smallpox broke out in the family in which they stopped Five cases and one death have occurred there, but thus far the disease at Bellevue has been confined to the one family. All the members of the family were vaccinated with virus on points from Fond du Lac , Wis , as soon as it was known they had been exposed; but in three cases the vaccination did not work In one case in which the vaccination worked, the person has shown no symptoms of the disease

At the last meeting of the Board, the subject of proposed legislation relative to diseased animals, and relative to a standard for milk, had been referred to the committee on legislation and diseases of animals jointly The Secretary reported considerable time and care had been devoted to the perfecting of three bills relating to those subjects, which had been introduced into the house of representatives this session

DANGEROUS ILLUMINATING OILS

The Secretary reported that during this session of the legislature there had been considerable lobbying to get the legislature to lower the standard test for dangerous oils, and to do away with the use of the tester adopted and recommended by this Board The claim of the lobbyist who came to this office was that the change was wanted in the interest of manufacturers of small quantities of oil who, he claimed, could not now compete with the Standard Oil Company Just how lowering the test would favor those particular oil manufacturers more than it would the Standard Oil Company, he did not make clear It has been rumored here that the reason for changing from the tester now used was to enable a dealer in a patent apparatus to sell his tester, but as this change is advocated by the same person who is laboring for a lowering of the test, it seems more reasonable to believe that the main reason is that the proposed apparatus does not detect the explosive vapor at so low a degree of temperature as the present tester From experiments it seems that simply by the proposed change in the tester the standard would be lowered about ten degrees

A committee was appointed by the Sanitary Convention held at Lansing, March 19 and 20, to consider this subject The committee consisted of Frank Wells (ex-President of the Michigan Pharmaceutical Association) chairman, H D Bartholomew, C E , (ex city engineer) and Professor David Howell, Superintendent Lansing city schools April 2, this committee went before the Senate Committee on State Affairs, and gave a verbal account of the results of their investigation, which was, in brief, that the test ought not to be lowered, that the "Foster Cup" was unreliable and ought not to be substituted for the Michigan State Board of Health tester, that if substituted for the Michigan State Board of Health tester it was equivalent to lowering the test by about ten degrees

By a vote of the Board this report concerning illuminating oils was ordered published, together with a resolution to the effect that there is not now sufficient evidence of the safety of such illuminating oils to warrant the lowering of the test now required for illuminating oils in this state This resolution was adopted unanimously

The Secretary read the report to this Board by SURGEON GEORGE M STERNBERG, U S Army, now at Johns Hopkins University, on his

EXPERIMENTS ON LOWER ANIMALS IN FEEDING AND IN MAKING INJECTIONS OF CULTURE-FLUIDS OF POISONOUS CHEESE

with the view of learning the nature and source of the poison

DR VAUGHAN made a verbal report of his

CHEMICAL EXPERIMENTS WITH POISONOUS CHEESE

He had certainly secured in a crystalline form a small quantity of one poison from poisonous cheese which would produce in man symptoms common to cheese poisoning There might be other poisons in poisonous cheese He had not yet fully studied the poison he had obtained It gave reactions like those of a ptomaine It was probable, he thought, that butyric acid had something to do with the sickness caused by cheese, there are different kinds of butyric acid, and the absence of the odor of rancid butter would not prove the absence of butyric acid

The subject of

SANITARY SURVEYS OF PREMISES

in cities and villages was thoroughly discussed It was thought best that the blanks used should be uniform, but that each city or village should provide its own blanks The committee was directed to make a sample blank to be recommended for such work, and be sent with a resolution, which was adopted as follows

Resolved, That the Michigan State Board of Health earnestly recommends to the boards of health of the cities and villages in Michigan that they make a sanitary survey of the territory under their jurisdiction, on blanks of which a sample is sent herewith, and to adopt such measures as the sanitary surveys may prove to be necessary to place the cities and villages in a good sanitary condition

Upon ballot for president of the Board for the ensuing term of two years, DR JOHN AVERY, of Greenville, was reelected

It was decided to demand from health officers of all villages

WEEKLY REPORTS OF SICKNESS

under their observation

Under the law requiring the approval by this Board of text books on physiology and hygiene, and the effects of alcohol, etc , before they are used in the schools of the state, the Board approved the following-named book "Elementary Physiology and Hygiene —The Human Body and Its Health A Text Book for Schools, Having Special Reference, Etc" By William Thayer Smith, M D

The following-named books were conditionally approved for use in the schools, with the qualification that they contained errors which should be corrected "Practical Work in the School Room Part I —The Human Body" By Sarah F Bucklew and Margaret Lewis, "The Essentials of Anatomy, Physiology, and Hygiene A Text Book for Schools and Academies" By Roger S Tracy, M D

DR VAUGHAN reported that he had attended the meeting of the State Dairymen's Association, at Grand Rapids, as a delegate of the Board, and talked to the meeting on the subject of cheese poisoning, especially in regard to his discovery of the poison

DR VAUGHAN also gave an account of the work of

THE COMMITTEE ON DISINFECTANTS

appointed by the American Public Health Association He is a member of the committee and, as such, has done considerable work, and had attended a meeting of the committee in Baltimore He thought the report of the committee, when published in full, would be a very valuable document in practical public health work The preliminary report of the committee is just published

DOMESTIC CORRESPONDENCE.

PLACEBOES AGAIN

DR MURDOCH'S REPLY TO THE AUTHOR OF "THE PHYSCIAN HIMSELF"

D W Cathell, M D, Author of "The Physician Himself"

DEAR DOCTOR,—Many thanks for your letter of April 2, its publication in the JOURNAL enables me to reply through the same channel, and also gives me an opportunity to speak of other matters contained in "The Physician Himself," wherein I differ with you

I have so fully expressed myself upon the subject of placeboes in the address published in the Journal of March 28th, that it is only necessary now to refer to the case of Willie Brown, and as this letter may be seen by some readers who did not see your letter, I here reproduce the history of his case as given by you, "*verbatim et literatim*." "I was recently called upon to treat Willie Brown, a stout twelve-year-old boy, one of whose companions had died of traumatic tetanus. The patient had become so overshadowed with a dread of that disease that he was abstracted from everything that formerly occupied him, had become wholly unable to study his lessons, had quit school and spent most of his time in thinking about his affection, and was in constant fear that he might get a scratch or wound, and—lockjaw.

"His family and friends had exhausted their arguments and assurances before I saw him, and I soon found that mine were equally unavailing, the patient continuing to weep and grow worse. Finally his father, an intelligent gentleman, suggested that I give him something or another that he would regard as a preventive of the disease. I presented to him thirty or forty of the very globules referred to in the criticism (mint water or anything else would have answered equally well), with instructions to swallow one at exactly 8 o'clock, morning and evening. His mind was at once relieved, and before all were taken, his thoughts had turned to other subjects."

Now, my dear doctor, of course you did not think that Willie would have traumatic tetanus, or any other form of tetanus. Your only object in giving the placebo was to quiet the apprehensions which he had, that he *might* receive a wound, and that if so, he *might* have traumatic tetanus. Now, it does seem to me that in a boy, twelve years old, of average intelligence, you might have been able to quiet his nervousness without resorting to this procedure. The only reason which I can conceive of for failure to convince him by words of the groundlessness of his apprehensions is the probability that you could not secure his confidence. The idea of giving him some medicine you say was first suggested by his father. I am inclined to think from this fact that the father had been in the habit, as many parents are for the purpose of accomplishing their ends, of practising little deceptions upon Willie ever since he had been a baby, and that Willie had at last found him out and withdrawn his confidence from the governor. Many parents are in the habit of deceiving their younger children in this manner: perhaps a nauseous dose of medicine is to be given, the parent will say, "Now, my dear, open your mouth and take this, *it is good, tastes nice*," and when the confiding child has opened its mouth, the villainous compound is poured therein.

Nor are these little tricks always confined to the parents. I have seen doctors, who when about to lance an abscess, or boil, for a child, say, "Now, my child, I am not going to hurt you, just keep still, and *you will not feel it*," and when confidence was secured the sharp knife was thrust into the quivering flesh. I have watched the effect upon children who have been treated in this manner, and the pain and mortification of having been imposed upon by those in whom they have trusted was as evident as the physical suffering which they had endured. You can deceive children in this manner a good many times, but you have constantly to be devising new means of deception, and there comes a time at last when all confidence is withdrawn. Now, of course I do not know that Willie Brown was a boy upon whom such tricks had been played, but the giving to him of a sugar pill at just 8 A.M., and 8 P.M., for the purpose of warding off an attack of traumatic tetanus before he had received a scratch, was a step in this direction.

> "Oh, what a tangled web we weave
> When first we practise to deceive."

I can but believe, that if you had been honest with this twelve-year-old boy, you would have been able to quiet his nervousness on account of his apprehensions in regard to the lockjaw. And that if you were not able to convince him that his fears were groundless, there must have been something the matter with his head which required more for its cure than a No. 35 homœopathic globule. If Willie is a sharp boy, he may soon get hold of a copy of "The Physician Himself", and then you will need to resort to some other deception, or your occupation in the Brown family, at least so far as Willie is concerned, will be gone.

But enough of Willie Brown. I have other objections to the teaching contained in "The Physician Himself" than the fact that it advocates the use of the placeboes. The spirit of its teaching is to give too great a prominence to appearances. The young physician is there taught how to *look*, and *act*, and *seem*, but he is not taught how *to be* a doctor. The *suaviter in modo* is everything, the *fortiter in re*, nothing. As one instance, let me quote from the book, page 19:

"Take care to be neat in your personal appearance, above all else wear a clean shirt and clean collar, for if you dress well people will employ you more readily, accord you more confidence, expect a larger bill, and pay you more willingly. You never heard of a bank swindler, or a confidence man, or a gambler, or a counterfeiter, or pseudo-gentleman of any kind, who dressed shabbily or appeared coarse. Such people are all students of human nature, and no matter how abandoned they are, no matter how tarnished their characters, or how blackened their hearts, they manage to hide their deformities as with a veil from all but the few who know their true characters, by assuming the dress and manners of gentlemen. Now, if genteel dress and polished manners can do so much for such fallen specimens of mankind, how much greater influence must they exert for those who are truly gentlemen and members of a lofty profession Clean hands, polished boots, neat cuffs, gloves, fashionable clothing, cane, sun umbrella, all indicate gentility "

Now it does seem to me that such teaching as this is rather calculated to belittle the medical profession than add dignity to it I do not object to your telling the young doctor that he should always keep himself neat and clean (although he should know this before commencing the study of medicine), but I do object to the *reasons* which you give for his doing so His reasons for so doing are not the same as are those of the bank swindler, the confidence man, the gambler, the counterfeiter, or the pseudo-gentleman, nor are they even because people will employ him more readily and pay a larger bill Of all the reasons given, not one is the true one The physician should dress like a gentleman, not because it will make him *look like* a gentleman, but because he *is* a gentleman He should be neat and clean, not for the purpose of imposing upon anyone, but in order to preserve his own self respect, and that he may not carry infectious germs from one patient to another When the physician ceases to be a gentleman and becomes a loafer or swindler of any kind, let him dress the character which he takes

One more objection to the teaching of your book, and I have done On page 75 you say "Do not lend yourself too freely to other physicians and surgeons, never make a habit of playing second fiddle by giving chloroform, etc, in surgical cases If you go and do some secondary part in a surgical case you will be looked upon as a lesser light to the one you assist, and you will take a position of neither honor nor profit, and will reap nothing but responsibility " This, I contend, is not good advice On the contrary, I think that the young physician who is the most ready and willing to assist his older professional brethren will be the most respected, and will reap the richest harvest in both honor and reward How, I would ask, are the young men who are soon to take the places of their fathers to familiarize themselves with the more difficult obstetrical and surgical operations if they do not first learn to assist, and thereby see how the operation should be performed? The opportunities of witnessing the more difficult surgical operations upon the living subject are not so frequent that any young surgeon can afford to neglect them, if he desires to perfect himself in his art He should esteem it an honor when called upon to assist an older practitioner Scattered all over our land are excellent surgeons who only became competent to play *first* after they had played second fiddle

There are other objections which I have to your book, but this letter is already too long Whatever you may think of me for writing thus plainly, I hope you will give me the credit of having an honest purpose Your book has had a wide circulation, and has been strongly ndorsed, and while there are some excellent suggestions in the book to young men just entering the profession, there are others, in my opinion, which give erroneous ideas of the profession, its duties and responsibilities Some of these errors are so great that I cannot permit them to go unchallenged Very truly yours,

J B MURDOCH, M D

Pittsburgh, Pa, April 16, 1885

BOOK REVIEWS.

TRATADO DE OPERATORIA QUIRURGICA, por El Doctor D ANTONIO MORALES PEREZ, Catedrático de Numero (por unimimidad de votos en la Oposicion) de Anatomia Quirúrgica, Operaciones, Apósitos y Vendajes de la Facultad de Medicina de Barcelona, ex-Alumno interno, por Oposicion, de la Facultad de Granada, ex-Primer Ayudante Mèdico, por oposicion, del Ejército de Cuba, etc, etc, etc Con un Prologo del EXCMO, SR D JUAN CREUS Y MANSO, Senador del Reino, etc, etc Ilustrado con numerosos grabodos Tom 1 and 2 Pp 751–755

TREATISE ON OPERATIVE SURGERY, by D ANTONIO MORALES PEREZ, M D, etc, etc With an introduction by D JUAN CREUS Y MANSO, M D, etc, etc Illustrated with numerous engravings Vols 2 8vo BARCELONA 1881

The author introduces his work with a graceful review of surgery since the time of Ambrose Paré, and shows that while engaged in the weightier matters of surgical theories and practice, he has not neglected the literary legacies of our predecessors It is with no little pleasure that we notice Dr Perez' work Spain has not kept pace with other European countries in the tremendous strides toward exactitude in medical science, and we are glad to notice such evidence as this work gives that she is awakening to a sense of her duty to humanity The author shows a most intimate acquaintance with the current surgical literature of the day, and few, if any, writers who have contributed anything to surgery of late years, are passed by in silence He utters a plea for clinics, dissections of the cadaver and surgical experiments, as being the only path to success in surgery By these means only can we familiarize ourselves with operations, with surgical anatomy, and attain the mechanical skill which every operator should have

Chapters I–XXV inclusive are devoted to a consideration of the general principles of surgery, the different anæsthetic agents, means of obtaining good results after operations, the various antiseptic agents, etc, etc Surgical ischæmia and the different apparatuses for producing it, prominently Esmarch's bandage, are fully discussed Though the author uses the bandage frequently, he is careful to state that it may be injurious under certain circumstances He also thinks well of the elastic ligature, and that its field of usefulness is as yet too limited Torsion, in his opinion, should not be applied to large vessels, ligation being much more certain of success He gives more space to surgical therapeutics than is generally taken up in works on surgery

Though not a strict "Listerian," he, nevertheless, is a very positive antisepticist, and is particular that all instruments be thoroughly disinfected before and during an operation Prominent among the diagnostic tables of the book, is one giving the differential diagnosis between malignant and benign tumors, at the end of which he impresses the fact that the thorough removal of carcinomatous structures, even to suspected glands and portions of tissue, adding that the wound is much more likely to heal than if diseased tissues be left

In order to save time and facilitate ready reference, especially for the student, are various tables giving the exact location for the application of ligatures to various vessels, methods for treating tumors of various kinds, the various autoplastic operations, the different methods of treating aneurisms, fistulous tracts, and a very complete one of amputations, resections and excisions The author is an earnest advocate for conservative surgery, and seeing the great success which has attended careful attempts to preserve limbs in almost hopeless cases, adopts substantially the views of Mr Holmes, in the first edition of his system of surgery, that important joints and limbs should not be operated upon, while a reasonable hope exists of curing without operation, though smaller bones may be removed if diseased externally, even though a cure by non-interference may not be hopeless, as by this means the disease may be cut short He has had very decided success in treatment of fractures of the femur by continuous extension and on that account recommends it in cases to which it is applicable Plaster of Paris, though a most valuable dressing, is unsuited to many cases, in which, if thoughtlessly used, will cause it to be regarded unfavorably

In the chapter on "Dislocations," he records a curious and rare case of left lateral dislocation of a dorsal vertebra in connection with a dislocation of a rib and fracture of the clavicle, due to traumatism He regards the administration of an anæsthetic—of which he regards the a c e mixture as the safest—in attempting the reduction of a dislocated limb as of great importance, not only as facilitating the reduction, but as lessening the liability to injury of the structures surrounding the joint

Vol II deals with the special operations on the different organs Passing over the chapters on the eye, and the aural and nasal cavities, we see that the author has paid no little attention to the treatment of oral deformities, and, if we may judge by the illustrations, with considerable success Gastrostomy he believes to be justifiable, when, after suffering from a disease which must prove fatal, there is some chance that the operation may prove palliative or curative, that when there is a probability of that measure of success, the patient should have the benefit of it Until May, 1880, the mortality from ovariotomy in Spain was very large In the majority of fatal cases the pedicle was treated with the clamp, or with the ligature or thermo-cautery and styptics Since the almost exclusive use of the ligature, the mortality has greatly decreased This seems to bear out the views of Mr Lawson Fait regarding the dangers of the clamp We cannot, in this short notice, pretend to do more than present a very superficial glance at the character and contents of the work before us It promises better things from our Spanish *confreres* in the future, and with such an example and teacher in their midst, we may hope for a material advance in the surgical work of that country

Babyhood, Devoted Exclusively to the Care of Infants and Young Children, and the General Interests of the Nursery Edited by Leroy M Yalf, M D, and Marion Harland 18 Spruce Street, New York

We hail the appearance of this infant in journalistic circles with much more warmth than we could that of a new purely professional periodical The field for the latter is already much crowded, but *Babyhood* is a periodical entirely *sui generis*, and it was a happy thought which prompted the editors to bring it into the world Though it is only in its fifth number as yet, it shows evidence of staying strength, there are no indications that it will die of inanition And it will augur badly for the good sense of our people when, if ever, it does so perish

Babyhood is eminently a journal for the family, as most families have children The April number opens with an article from the pen of Marion Harland, on "Baby's Day-nap" (showing that the day-nap is as important to the health of the baby as to the peace of the family) In an article on "Nursery Cooking," we are glad to find that it is recommended that a little salt be added to the cow's milk which is intended for the infant, a very important point, furthermore, that the milk should be boiled in a vessel which is set within another vessel holding water This prevents the catch of boiling milk on bottom of the first vessel

Dr Jerome Walker, senior physician to the Seaside Home for Children at Coney Island, has the second of a series of articles on "The Accidents and Injuries of Childhood, and Their Prompt Treatment," in this number This is followed by a paper by Dr Ripley, on "True or Membranous Croup", this by "Isolation in Infectious Diseases," by L Emmet Holt, M D Next is an article by Dr Sternberg, on "Domestic Disinfection", and the last medical article is by Dr George Henry Fox, on "The Care of the Hair" These articles are written for everyday use, and can be understood by almost anyone

There is a department of "Nursery Helps and Novelties," well illustrated, which will be read with much interest by those having matrimony in view The special department, "Baby's Wardrobe," is also illustrated, and well, we suppose The explanatory text of the cuts is somewhat unfamiliar reading but we have no doubt that it is correct

This, as we have said, is essentially a family periodical, and physicians would do well to advise its early reception into every household in which there is a likelihood that there will be young children They may be sure that nothing will be admitted to its pages which could do otherwise than elevate the hygiene of the infant and of the household It may be recommended to every family, and to every mother, in the most unqualified manner It is ably edited and its general "get up" is excellent

A PHARMACOPŒIA FOR THE TREATMENT OF DISEASES OF THE LARYNX, PHARYNX, AND NASAL PASSAGES, WITH REMARKS ON THE SELECTION OF REMEDIES AND CHOICE OF INSTRUMENTS AND ON THE METHODS OF MAKING LOCAL APPLICATIONS By GEORGE MOREWOOD LEFFERTS, A M, M D, Clinical Professor of Laryngoscopy and Diseases of the Throat, College of Physicians and Surgeons, New York Second edition, revised and enlarged 18mo, pp 101 New York G P Putnam's Sons, 1884

The first edition of this little book was given to his students by the author about five years ago, and it is needless to say that it was most highly appreciated by those who were most constant attendants upon his lectures It contains far more that is valuable than a great many books ten times its size We are glad to see that Dr Lefferts has omitted the word "Manual" from this edition as from the first, it is also pleasing to note that the publishers have made the book just a little too large to be carried in the vest pocket Besides the formulæ contained in it there is a sufficient amount of descriptive matter, and quite a number of cuts to illustrate instruments, though the time-honored impossible view of the posterior nares is not to be found, indicating, it is to be hoped, that the plate is worn out

It is useless to enter into an elaborate discussion of the book, the author is so well known as an authority on all matters laryngeal, pharyngeal, and nasal that whatever he writes can be taken on trust It is a good little book

MICRO CHEMISTRY OF POISONS, INCLUDING THEIR PHYSIOLOGICAL, PATHOLOGICAL, AND LEGAL RELATIONS, WITH AN APPENDIX ON THE DETECTION AND MICROSCOPIC DISCRIMINATION OF BLOOD, ADAPTED TO THE USE OF THE MEDICAL JURIST, PHYSICIAN, AND GENERAL CHEMIST By THEODORE G WORMLEY, M D, PH D, LL D, Professor of Chemistry and Toxicology in the Medical Department of the University of Pennsylvania With ninety-six illustrations on steel Second edition 8vo, pp 784 Philadelphia J B Lippincott Company, 1885

When the first edition of this book appeared it was confidently asserted by the reviewers that it would prove a success, and the early exhaustion of that edition and the call for the second have shown that the book was correctly judged

We have only one fault to find with the present edition, the section on "Ptomaines" is too much abridged It would seem that the amount of work which has been given to this subject should have merited fuller consideration than Professor Wormley has given to it Beyond this, however, no fault can be found with the work, it demands a separate place in medical literature, occupying the middle ground between legal medicine proper and medical chemistry To each of these branches it is an invaluable, and, we may say, indispensable adjunct The author has shown that he is no less apt as a writer of a good book than as an able and efficient teacher of chemistry The publishers have done their portion of the work well, on good paper and with clear type A comprehensive index completes the book

MISCELLANEOUS.

REPORT OF THE NEW YORK TENEMENT-HOUSE COMMISSION —This report, which was submitted to the Assembly on February 17, shows that 968 houses were inspected It estimates the number of tenement houses in New York at 2,600, and recommends a registration of tenement statistics

The percentage of deaths in tenements has increased from 51 11 in 1876 to 56 50 in 1884 The percentage would be greater were it not that sick occupants of tenements go to charity hospitals, to which their deaths are credited In one district the mortality of children under five years of age is over 65 per cent The greatest sickness is in the rear tenements, of which there are 3,000 in New York

The Chief Inspector, Frederick M Owen, draws the following conclusions in his supplementary report

1 There are buildings which should be ordered immediately vacated

2 The number needing inspection of plumbing is very large

3 It is impossible to make owners or tenants obey sanitary laws without systematic inspection

4 Such inspection is impossible with the small force of inspectors of the Health Department, even in its present efficiency

5 The privy vaults in this city should be condemned

6 The water closet is preferable to the school-sink

7 All water closets, vaults, and school sinks in tenement cellars should be removed

8 Cellars in made ground with tide influence are flooded at high tide

9 City cellars throughout lack care and cleanliness

10 The waste of water requires special attention

11 The majority of bedrooms are without light or air

12 The darkness of halls conduces to immorality

13 The location of fire escapes often exposes to unnecessary danger

14 The condition of tenants is in advance of that of tenements

15 Tenants generally appreciate the importance of sanitary measures

16 That some of the worst tenements contain only three families

17 That rents are unnecessarily high among the poorer tenements

18 That illegal crowding is universal among the Polish Jews, Italians, and low Irish

The following table shows the total deaths in New York, total in tenements and percentages

	Total Deaths	Total in Tenements	Percentage
1880	38,866	27,677	45
1881	38,609	21,171	55
1882	37,951	20,690	55
1883	33,982	18,359	54
1884	35,044	19,801	56½

The chief obstacles in the way of improving tenements are carelessness of tenants, indifference of landlords, difficulty in finding owners, non-residence of owners, mortgages, disposition of agents to do mere patchwork, etc —*The Sanitarian*, March, 1885

The Sanitary Condition of Chicago —A leading daily paper of this city thus comments on the uncleanliness of the city "There are miles of alleys, and streets too, in which offal, refuse, kitchen garbage, and all manner of filth have accumulated untouched all winter Every quarter of the city, almost, contains vacant lots which have been made the common dumping ground for similar accumulations during many months These things are public nuisances which the private citizen, called upon to put his own premises in good sanitary condition, has a right to demand shall be promptly abated by the city The rains of the last week have made it feasible to enter at once upon this work of abatement The Health Officer says that, if necessary, he is prepared to put a thousand carts at such work There can be no question as to its necessity Let the streets and alleys be cleaned forthwith, and compel every owner of a vacant lot to promptly abate any nuisance existing thereon, or, if he fail after due notice, short and sharp, let the work be done by the city at the owner's expense Until these things are done it matters little what the present death rate is, or what the individual householder does, the city will remain a very dirty one, it will continue to offer an invitation to epidemic disease, and life and labor, both mental and physical, will be unnecessarily handicapped by conditions for whose existence there is not a shadow of excuse"

The Cholera in Spain —The European countries bordering on the Mediterranean have a quarantine against all vessels shipping from Spanish ports

A dispatch of April 19 states that the panic in Spain over the spread of cholera is increasing, as reports continue to arrive showing that new points are being constantly attacked The government is taking energetic measures to isolate infected towns In addition to the places hitherto mentioned, suspicious cases have occurred at such widely separated points as Jean Andalusia, in the south of Spain, and Santiago de Compostela, Galicia, in the extreme northwest corner of the kingdom

The *Chicago Tribune's* Barcelona correspondent telegraphs as follows

"The mysterious disorder here and at various other Spanish ports, which led to quarantine regulations at Toulon and Marseilles, and which excited adverse opinions in the chambers of commerce there, has been investigated by the *Tribune* correspondent There have been about a hundred cases and fifteen deaths of the disorder It is cholera morbus or cholerine, and not at all of an Asiatic type It is of local origin, say the authorities, who call themselves sanitary Your correspondent hears descriptions of a similar disorder at Alcira, near Valencia, where, in consequence of the failure of the regular water supply by the Aqua Santa Company, the people have drunk from a canal which was tainted by paper mills that use suspicious rags Your correspondent to day met a physician who, however, said that these disorders, unless great care is taken, might lead up to pronounced cholera in the coming hot season"

Pleuro-Pneumonia, Rules Adopted by Commissioner Colman for Stamping It Out —A dispatch from Washington states that the first comptroller having decided that the commissioner of agriculture can legally use the pleuro pneumonia appropriation to pay for such animals as it may be found necessary to kill in order to stamp out an infection, Commissioner Colman has procured a set of rules to govern the action of the department in this regard, and has telegraphed a copy of them to Gov Marmaduke, of Missouri The rules will be submitted to the executives of other states for acceptance They are as follows

"Whenever the chief of bureau of animal industry shall be satisfied and shall report to the commissioner of agriculture that contagious pleuro-pneumonia or other dangerous infectious or communicable disease exists in any state or territory, and is liable to spread from such state or territory into any other state or territory, the commissioner of agriculture will designate one or more officers or employés of said bureau whose duty it shall be to proceed immediately to the locality where such infectious or communicable disease is reported to exist, and to there establish quarantine regulations to prevent the spread of said disease, or to assess the value of any animal or animals which it may be found necessary to destroy in order to extirpate said disease, and to employ both measures if necessary for the extirpation of the same It shall be the duty of such officers or employes detailed for the purpose aforesaid to report to the commissioner of agriculture the number of cattle they have found it necessary to destroy, with the names of their owners and the assessed value of said cattle, and said officers or employés shall deliver to said owner or owners certificates of the number of cattle so killed and the assessed value thereof Upon receiving said report the commissioner of agriculture shall examine the same, and, if he approve the proceedings of said officers or employés and the assessments made by them, he may order the payment of the amount so assessed to the respective owners of the cattle destroyed, and if he shall disapprove the amount so assessed he may order payment to said owners of such sum as he may deem a just and reasonable compensation for said cattle It shall also be the duty of said officers or employés to cause carcasses of animals found necessary to be destroyed to be burned, buried, or otherwise destroyed, and the cost of such disposition of said carcasses shall also be reported by them to the commissioner of agriculture, and the amount, if approved, will be paid out of the fund appropriated for such purposes If, in the opinion of said officers or employés so detailed, the spread of such infectious or communicable disease can be prevented by the quarantine of the animals in the locality where such disease is reported to exist, then a safe and sure quarantine shall be effected, the cost of the same to be also reported to the commissioner of agriculture, and, if approved by him, the same to be paid out of the fund hereinbefore named "

Rules governing the details of slaughter and quarantine will be prepared immediately

PLEURO PNEUMONIA IN ILLINOIS —Reports from different sections of this state show that pleuro-pneumonia is existing to an alarming extent, and that it is spreading The general alarm on the subject of the disease resulted on April 24 in the introduction of a new pleuro pneumonia bill in the legislature, which was read the first time and ordered to a second reading without being referred to a committee It authorizes the appointment by the governor, with the concurrence of the senate, of three live-stock commissioners to hold office for one, two, and three years respectively, in the order of their appointment, and at the expiration of the several terms the vacancies are to be filled for the entire term of three years Their duties are to investigate all cases of contagious disease in domestic animals as reported to them or coming to their knowledge, and to properly quarantine infected animals or premises under prescribed rules They are authorized to direct the killing of animals afflicted with or exposed to pleuro-pneumonia and other fatal and contagious diseases The bill further provides for the appointment by the governor of a state veterinarian to act under and in connection with the board of live-stock commissioners, which is to have the power of appointing necessary assistants, with the approval of the board When, on report of the commissioners, the governor becomes satisfied that any of the mentioned diseases have become epidemic in any locality outside the state or otherwise, he may by proclamation schedule such localities and prohibit the transportation of stock from them into the state without a certificate of health from the veterinary inspector of the board A fine of from $1,000 to $10,000 is attached to a violation of this provision, and the guilty party is likewise made civilly liable for all loss or damage resulting to anyone from his act Traffic in diseased live stock, or failure to report to the board the existence of disease is declared felony, punishable by imprisonment for not less than one nor more than ten years, or by a fine, as in the former case The commissioners are empowered to assess the damages accruing to anyone by reason of the killing of his stock by their direction, and their assessment, when approved by the governor, is to be paid by the auditor No compensation, however, is to be allowed for animals already diseased The bill, after minor provisions to strengthen its working efficiency, concludes with an emergency clause

CANCER OF THE TONGUE AND SMOKING —MR WHITEHOUSE writes to the *British Medical Journal* "As to whether smoking may be the immediate cause of cancer surgeons are not agreed, but there is a condition of the tongue which is, in many cases, the precursor of epithelioma, namely 'leucoplakia', and this disease is more generally considered to be caused by smoking Mr Barker, writing on this inflammation, in Holmes' 'System of Surgery,' points out that among 75 recorded cases, 71 smoked, and only 4 were non-smokers Buzenet used the term, '*plaques des fumeurs*' for this disease, because he was convinced that smoking so often gave rise to it Mr Hulke has more than once shown that 'leucoplakia' may be the starting-point of epithelioma, and out of the above-mentioned 75 cases, 44 developed epithelioma, and in one only was there a family history of cancer" Mr Morris also states that out of 55 cases of cancer of the tongue, 13, or about one-fourth, had been the seat of this leucoplakia, or icthyosis Mr Bryant's experience has been of a similar character —*Medical Record*, April 4, 1884

Preparing to Fight Cholera, a Conference of Health Officers.—Health officers, representing Baltimore, Philadelphia, New Haven, Boston, Brooklyn, and New York, held a conference in New York on April 23, to agree upon uniform negotiations to prevent the introduction of cholera into this country. It was concluded to establish a close quarantine against old rags, and to allow none to be landed except after being thoroughly boiled or steamed by the superheated steam process. The sulphur process was declared to be a failure, and the conference decided against it. It was mentioned incidentally that the fact of there being so few cases of smallpox in New York city during the past month was traceable to the stringent regulations requiring all old rags to be disinfected. The close quarantine against all old rags will be carried out at all the Atlantic ports.

Pleuro-Pneumonia in Missouri.—Dispatches from Fulton, Mo., state that the people of Callaway county are becoming greatly discouraged at the failure, so far, to stamp out pleuro-pneumonia among the cattle in that county. The disease is constantly spreading, not only in Callaway county, but in adjoining counties. It is said that over one thousand cattle have either become diseased or have been exposed to the plague. The live-stock men of St. Louis have adopted a resolution taking the ground that the disease can only be eradicated or controlled by state action. They strongly urge the government to call a special session of the legislature to take vigorous measures to stamp out the disease. It is said that the cattle interest in the state has already suffered a depreciation in value of over $500,000.

Cholera in Spain.—The Marine Hospital Bureau has as yet received emphatic denials of the reports that cholera prevails in Spain. Every precaution is being taken to prevent the introduction of contagious diseases into this country. The quarantine stations at Ship Island and Sapelo sound are already in operation, and those at Cape Charles and Delaware breakwater will be open May 15. The revenue steamer Manhattan will be utilized as a quarantine boat at the Cape Charles station.

Dangerous Factories.—The Health Officer of Chicago has recently closed a toy-balloon factory in which was used a solution of bisulphide of carbon, which causes paralysis of the extremities of those who dip the balloons in the liquid. The Health Department is now investigating the matter. Five boys, between the ages of 12 and 14 years, were employed in dipping the balloons, and all of them have suffered from paralysis of the muscles of the hands and feet.

The International Sanitary Conference.—It is stated that communications have been sent to the European powers to send delegates to an international sanitary conference to be held in Rome, it is thought, about the 1st of May. It seems that the government at Washington has been passed over in this matter, and that no delegates will go from this country.

The State Board of Health of Maine has an annual appropriation of $3,000 for its maintenance. The act which incorporates it is very similar to the Michigan act. The legislature of Maine has also passed a bill requiring the teaching of temperance and hygiene.

The San Francisco County Medical Society proposes to have a reading room, but has to meet the following conclusive objections: "1. That of extra expense; 2, that the present library is not consulted; 3, that the present library is not worth consulting."

The State Board of Health of Indiana, as newly organized, is powerless. The bill reorganizing it was passed without the enacting clause, and the board will have to remain as before.

Retirement of Professor Bouchardat.—Dr. Bouchardat, Professor of Hygiene at the Paris Faculty of Medicine, has, after a service of nearly forty years, retired, and his name is transferred to the list of honorary professors.

Professor Austin Flint, Jr., received the honorary degree of LL.D. from the Jefferson Medical College at the annual commencement, held on April 2.

Disease in the English Army in Egypt.—Late dispatches from Egypt state that the condition of the English soldiers is deplorable. From morning to night they swelter under a scorching sun, and from night to morning they are busily fighting the vermin, with which the country swarms. Many are dying of typhus and enteric diseases.

Trichinosis in St. Petersburg.—There have been very recently about twenty cases of trichinosis in St. Petersburg, all in one family, and all from eating raw pork. The authorities have not yet determined whether the trichinous pork was of native origin or whether it came from Germany.

Cholera in Egypt.—It is stated that cholera has reappeared at Cairo, and that seven deaths from the disease have occurred there. The Egyptian government has decided to quarantine vessels arriving from ports on the Mediterranean littoral of Spain.

Scarlet Fever in Illinois.—It is reported that scarlet fever prevails to an alarming extent in the village of Pecatonica, Ill., and all the schools have been indefinitely closed.

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S. DAVIS.

PUBLISHED WEEKLY

Vol IV | Chicago, May 2, 1885 | No 18

THE PRESIDENT'S ADDRESS.

THE PAST AND THE PRESENT—THE PHYSICIAN AS RELATED TO THE TRIBUNALS OF LAW

BY HENRY F CAMPBELL, M D,
OF AUGUSTA, GA

Gentlemen of the American Medical Association,—At the last meeting you cordially conferred upon me the honor to elect me president of this association

We all justly esteem it the highest position in the gift of the American medical profession I am fully sensible of my own unworthiness, and also of the far higher claims of many others, to the office you have accorded me

Let me aver to you my high appreciation of your generous recognition of the South, and of the great southern state I represent, and for myself, I return you the thanks of a warm fraternal heart, for the kind partiality which has guided you in your decision

THE LIVING AND THE DEAD

Exalted as may be the position, by the grand objects of the organization, and by the long years through which it has exercised its improving and perfecting influence over the minds, and hearts, and destinies of the medical profession, the honor is still further emphasized by the long line of noble and illustrious men who have recently and in the past guided the deliberations of this national representative body Look over the roll of honor—the roster of our rulers—from the venerated Chapman to the revered and beloved Flint, and we find among both the living and the dead, names and the record of lives which fill our hearts with pride—brilliant lights who, like stars of the first magnitude, must for all time continue to illumine the firmament of our profession with the glow of their godlike benevolence, and the unquenchable fire of their genius—cosmopolitan, as well as national men—followed and quoted and honored—very Gamaliels, at whose feet the Pauls of every nation have sat, contentedly drinking in the inspiration of their wisdom and taking example and encouragement from their daring and their enterprise

Far lagging in the rear would have been the old world, had it neglected the record and the literature of the new! In the long line of our noble ancestry, among others who adorn the gallery of our progenitors, Rush and Physic, McDowell and Atlee, Deadrich and Smith, Dudley and Eve, Silliman and Hays, Mott and McClellan, Gross and Sims—some of these among the illustrious dynasty of this association—have each opened to the minds of all nations new fields of science, of labor, and of literature, in which to energize, and dying, have all left their impress deeply and ineffaceably graven upon the tablets of scientific progress of the old, as well as of the new world Now, may we ask, who dares *not* to read

I might well confine my glorying now to only our glorious dead—embalmed in the frankincense, and myrrh and the conserving sweet-smelling spices of worthy and undying achievements, enshrouded in the spotless robes of their immaculate lives, they remain with us still, even our entailed inheritance—our inalienable trust—our household gods—the archetypes and guardians of this association

When we would turn our minds for a moment from the silent, but eloquent, and never-to-be-forgotten dead, to the active, progressive, and ever hopeful living, we find, in the contemplation of the present, that our dream of the future may be as bright as has been our golden history in the past

What means this large convocation of earnest, responsible men, this relinquishment of homes and of professional occupations? What means this sea of congregated heads, some burnished, some gray, and some of silvery white? What means this plain of upturned faces, some seamed and furrowed with lines of toil and anxious thought, others youthful, and bright, and hopeful, but all glowing with the inspiration of a noble enthusiasm, all eloquent of, and stamped with the seal of devotion to, a common and holy purpose? Let me answer What we behold is indeed a culmination of the past, but no less is it the prophecy and assurance of the future, some are here in the very outset of a prosperous career, some midway in the journey which is to end in brilliant achievement, and others near the goal where the laurel and the crown of the victor await them for their perfected work

These are the contemporaneous makers of the scientific history of our own times I would gladly signalize and dwell upon their noble part, but I forbear to depreciate them by a trite and trivial mention of their names and work

Too numerous to accord to each his merited meed of praise, you, gentlemen, constitute the working body and stalwart supporters and defenders of the honor of this association To you we look for present labor, and to you we look for future glory

But can all the living be thus passed by? Must our hearts forever yearn and yearn in silence to tell the honor, the reverence, and the love that burns within us? Must our "bless you, my brother," and our "well done, good and faithful," die ever "as a voiceless thought"? Who is it that has fought shoulder to shoulder with another in the veteran grand army of the world's campaigns, and has seen him fall out of the ranks, to rise no more, who is it that has stemmed with another the current of the mighty river of Time, or battled with the waves in the tempestuous ocean of life, and seen him suddenly and forever sink beneath the dark waters, and has not mourned the last word unspoken, and bitterly cried out, "Too late"? The goodwill and the assurance he had been longing to utter have failed of their application, and they remain in his tender heart like "unused spices" in the hands of loving women at the Saviour's tomb

Gross and Sims, illustrious in their lives, loved and honored in their death, the giants of our pride, and the sacred objects of our reverence, have passed beyond the sound of earthly praise With shining robes more honorable than any toga of office we can put upon them, with crowns more resplendent than those of earthly monarchs, and with harps and melodies more entrancing than the music of our love or the anthems of our praise, they hear no more the voice of human adulation The protestations of love and gratitude, now uttered in the bitterness of our grief and in the magnitude of our irreparable loss, fail to unburden our hearts, and they return to us empty of their reward in the pleasure they *might* have given We are now forever debarred from pouring into the living ear and into the throbbing heart all which custom withheld, and which now we would gladly tell We indite memorials, we erect monuments, we build mausoleums, and THE DEAD HEED THEM NOT

> "Can storied urn or animated bust
> Back to its mansion call the fleeting breath?
> Can Honor's voice provoke the silent dust,
> Or Flattery soothe the dull, cold ear of Death?"

Custom and convention allow praise, panegyric, and loud lamentation to the dead, but command silence and repression to the living, however loved and worthy, and however near their journey's end

As I glance around this crowded assembly, as I cast my eye over the lengthened list of our membership, here and there among the buoyant, active workers of to-day, my glance becomes a gaze of pleasure, and my eyes brighten as they fall upon the familiar forms and read the names of some — now sadly few indeed — who in a former generation, and through all the toilsome, turbulent years between "then and now," have lovingly worked on, as they are working to-day To many their faces are unfamiliar; to some the history of their early work and achievements in this association is unknown "A new Pharaoh hath arisen which knoweth not Joseph", which knoweth not their patience, their devotion, their inestimable work, and faithful stewardship in the past, as they see and esteem them now

It would be unparliamentary, at least, to call their names, but let me indicate, in some degree, the valuation and the worth we should set upon them

I see before me more than one who, present at the first foundation of this association, assisted —over a generation ago—in organizing out of the chaos of the medical profession of the United States this congenial, facile, and efficient body, multiple in its sections and departments, heterogeneous in its structure, pursuing in each division objects diverse and special, yet each contributing to form an organization powerful in the uprooting of ignorance and error—mighty and invulnerable in the defence and promulgation of truth

Again, I have before me some still in the ripened prime of vigorous manhood, who were active in our halls and in our discussions over thirty years ago—some, holding honorable and laborious official stations then, are by their own elections, most active as private laborers now

Again, among this multitude, can the anxious eye of friendship, long familiar with their forms, readily search out some in whose breasts not even the burthen of years or the calamities and casualties of prolonged and laborious lives, could abate the honor and devotion they gave in the heyday of their early prime to this association—once the child of their trembling hope, now the object of their pride and triumph

Make haste to do honor to all these venerable men—our Nestors—the fathers of our history and the sires of our generation—honor them *now*, while still they walk in and out before you, and among the children of men—let me voice for this association, in their living ears and in glad gratulation to-day, the avowal and the eulogy we may haply sob forth in bitter lamentation to-morrow — let us in manly frankness to-day pour into their throbbing hearts some little of the praise and commendation which to-morrow we may have to engrave in tearful sadness on the cold insensate marble of their tombs

Once more—and I will still remain impersonal in the familiar sketch I would portray—our eyes may at this moment rest with honoring gaze upon one who at the present time, and before the present generation of laborers in the field, might stand prominent amongst us only by the encouraging and ever-inspiring magnetism of his presence, and by the stupendous and self-sacrificing labor in which he is ever willing to engage—he labors now as he labored two score years ago—well entitled to the honored name of "the father", no one of the sons of this association can excel him in watchfulness for its interests, in tenacity for its honor, in unceasing labor for its advancement No neophyte or tyro is he in its affairs, he presided at its birth, nursed it through infancy and childhood, was the guide and counsellor of its manhood, and now in its ripe maturity, adds spirit to its energies, watches its progress, faithfully guards its good name and is the laborious chronicler and promulgator of its intelligence

Too full of the meekness of wisdom to be elated by praise, too worthy of praise to be defiled by flattery, and among all the living standing foremost in the duration and constancy of his devotion, I could almost ask you to allow me, by virtue of the authority in which I am clothed, to bid him stand, as sovereigns bid their heroes kneel, and dub him with the ensign and the title "*Noblest Roman of us all*"

Thus have I endeavored to illuminate my brief presentation of the past and of the present with pictures of the *personnel* of the association—with portraits and groups of dead and living men—let us honor, cherish, and hold sacred the memory of our illustrious dead—let us not fear to encourage and give solace to our long-suffering, faithful, and noble living

OUR MECCA AND THE WORLD'S PILGRIMAGE

Already have I referred with cordial comment to your graceful recognition of the South in the appointment of the present place of meeting Besides the bright sunshine and the balmy air redolent with the perfume of tropical fruits and flowers, enlivened by the glittering plumage and made musical by the sweet spring voices of winged choristers, there ever breathes in the atmosphere and throbs in the pulses of this monster mart a solemn and a weird consciousness—a sanctity of association—which in the minds of our profession, neither time nor wide separation, nor diverse political opinions nor even internecine war, have been able to profane or in the least obscure The glorious triumph of our states upon this ground over the foreign foe, their inglorious triumphs upon this ground over each other, when marshalled in mad and mortal but on each side, manly and patriotic antagonism, fade from our minds, when as physicians and philanthropists we remember "The pestilence that walketh in darkness and the destruction that wasteth at noonday" They here, too often, have been the invader and desolater, and here, too, have they often been met by heroes of our profession, the noble and devoted defenders of the people

Though with a health bill and a death rate ordinarily bearing favorable comparison with other great cities of the Union, New Orleans has sometimes, like the happy valley or the peaceful hamlet of romance, become the scene of death and desolation, its bright homes clouded with sorrow, its prosperity changed to adversity

How often, wherever we may have been, wherever our homes, whether in the green mountain fastnesses of health, in the torrid interior, or on the dented seacoast,—how often, I repeat, have our minds and hearts been turned with fraternal sympathy and profound interest to our devoted brethren of this lovely city of the gulf, battling with the destroyer, and nobly giving up comfort, and safety, and health, and life itself in a martyrdom to the love they bear mankind! Thus has this region become sacred and heroic ground with the medical chronicler and historian

How changed is the present aspect! what magic metamorphosis do we find! The whilom shunned and dreaded pest house of the nation has become the inviting and the crowded Mecca of the wide world's pilgrimage From the remotest bounds of civilization the call has met response, and now are gathered here, in generous rivalry for excellence in the arts of peace, the representatives of all our states, and of nearly all the foreign nations

Here are the products of agriculture, of manufacture, and of mines, the triumphs of genius, the achievements of ingenuity Here, too, are the medals, mementoes, and heirlooms of the past, the proofs of progress in the present, and the unlimited foreshadowings of the future, all collected in one interminable tableau and unbounded panorama, opening to view the most comprehensive exposition of the world's advance, making the grandest demonstration of man's triumph over the rebellious realm of nature, and of his divine right to subdue, and hold his kingly rule over her wealth, her potencies, and her potentialities

May I not here congratulate this association that in our customary annual wanderings, and by the generous hospitality of our brethren of New Orleans, we, too, have been brought to witness a scene so rare and rich in incident, and that we, too, have been made to act a part in a wonderful drama, so abounding in interest, instruction, and enjoyment?

Highly do we value the occasion, and well will we remember our coming to this commercial emporium of the South, and her grand exposition of the world's progress, warm and grateful will ever be our memory of our brethren and of her people, opening wide their arms as hosts and entertainers of guests from every corner of the world's domain, profound and long will remain our admiration and our wonder for this lovely Crescent City, as she sits like a beautiful queen, in stately dignity, commanding her far-reaching iron tributaries, while the great Father of Waters, the mighty monarch of the valley, rests his majestic head upon her lap, pays homage to her power, and pours his libation at her feet

A REPRESENTATIVE AND A LEGISLATIVE BODY

The spirit and intent of our American institutions are, in a certain view, aptly represented and illustrated in the organization and high objects of the American Medical Association Like the national congress, each meeting represents, with more or less accuracy and truthfulness, the tone, the energy, the progress, the varying shades of opinion, and the sometimes widely differing results of observation and experience, as modified by climate, geographical and social conditions, population, and locality

To generalize and harmonize these diverse elements, and to educe from them *laws* compatible with the interests and for the general welfare and advance of the whole, is no more the object and the duty of the political national congress than of this Scientific National Association

They are both representative bodies, each with a broad constituency, the one in the state legislatures, and in the direct franchises of the people, the other in the state associations and other medical organizations that have honored and trusted them as delegates, to represent and act for them at our annual meetings

The bills read and discussed, whether originating in the House or in the Senate, or in a message from the President of the United States, when enacted into laws for the good of the people, are, as we may hold, no more effectual in the attainment of their ultimate and benevolent ends than are the principles evolved, and the perfection of methods accomplished, in the readings and discussions in the several sections of the American Medical Association

They are each and equally for the enlightenment and guidance of the two great constituences represented, ours a constituency of unequalled intelligence and benevolence, the noble, humane, and learned medical profession to the remotest bounds of our country

To remedy what may appear to be defects in organization, to supply what may seem to be deficiencies in legislation, is the privilege and the duty of each of these representative bodies, at the time of their convocation or assembling

A message from the executive, as I have said, may originate discussion having in view improved or altered legislation in Congress It is by no means without precedent that the deliberations of this association be sometimes influenced by propositions from the chair Some of our most important and valuable measures bearing upon our progress and welfare have been thus brought to our consideration—the transformation of our publication of the transactions of the association from an annual tardy and ponderous volume into a weekly journal promptly and rapidly presenting our work not only to the members, but to the entire profession, as the proposition of President Louis A Sayre at New York and the invitation of the Ninth International Medical Congress to the United States in 1887, as the proposition of President Austin Flint at Washington, are important and notable instances in which great benefit and improvement to the medical profession of this country will result from action inaugurated by and emanating from the chair of this association, or,—to continue the worthy parallel I have begun,—by a message from the executive to the legislative department of this Association

THE JOURNAL—THE NINTH INTERNATIONAL MEDICAL CONGRESS

By a careful consideration and review of the constitution and organization of this association, it will be found that the wisdom and forecast of our predecessors have left but little to alter or amend, whereby we can add to the facility of its work or to the scope and comprehensiveness of its design

No message from the chair of the present meeting can equal in their importance some of those fundamental changes heretofore made, as in the organizations of sections and committees whereby the present perfection has been attained —none yet to be made, so far as can now be seen, can equal in immediate and wide utility and improvement, both to the association and to the medical profession, that proposition by which the journalizing of the transactions has been accomplished, and it may also be stated that none has ever been received with more favor and cordial assent than that by which we are to receive the incalculable benefits resulting from the invitation and organization for the Ninth International Medical Congress in America The publication of the Journal may now be regarded as an assured and satisfactory success In its first two most trying and perilous years, the foundation has been laid for an influential and commanding future It has already secured constant communication and comity among the membership of the association, and it will unquestionably in time become the means of organizing for good the entire medical profession of the United States, while the International Medical Congress in America will bring this association and the medical profession of the United States in direct and intimate relation, incorporate us with the scientific organizations and with the advancing and progressive researches of all the foreign nations

As a member of the Board of Trustees having in charge the publication of the Journal, and also as one of the general committee having in charge the invitation and organization of the Ninth International Medical Congress, and being intimately conversant with the stupendous labors and embarrassing difficulties involved in both these enterprises at their outset, it affords me pleasure to state from this chair that a full amount of praise and commendation are due to the editor of the Journal and to the executive officers of each of these two great trusts They have faithfully and laboriously brought them both to a state of progress assuring of brilliant and permanent results

THE DOCTOR IN THE COURTS

Notwithstanding the apparent completeness of our organization, and the generally satisfactory operation of our working plan, I will ask in this brief portion of the hour usually allotted to the present address, to make reference to a matter of recognized importance to the medical profession, and which, it has long appeared to me, should at some early period in the future be made one of the subjects of our diligent and regular investigation, at least engaging our frequent consideration, if not made one of the departments for the annual readings and discussions in one of the sections

The subject I refer to has ever been justly regarded as one of much complexity, difficult to present clearly, and still more difficult to expound and elucidate

It is no less one, however, which will be recognized by all as deeply involving, if not compromising, the comfort and welfare, and still more, the dignity and honor of our conscientious, learned, and lordly profession

I would comprehensively state the *problem*—for it well deserves the name—as "The relations of the medical profession to tribunals of laws," or, as I have heretofore more briefly summarized it —*The Doctor in the Courts*

MEDICAL TESTIMONY

That the position of the medical witness, and to a certain extent, all professional and expert testimony before the courts of law is anomalous, and often one of false relation to justice, as well as the ends of humanity, and sometimes mortifying to the pride and self-respect of the deponent, few will deny, for but few have been so fortunate as to escape the annoying experience of being at one time or another the subject of such arraignments—happy has he been have only his intelligence and his integrity been assailed, and happy, too, that no *malpractice* suit has deprived him of his liberty and living as well

My object is more to bring the position of the medical man summarily before you, as he stands in his several relations to the tribunals of law, rather than to minutely describe that with which we are already familiar, or to present elaborate arguments to establish the existence of evils, of which we are already convinced I will, therefore, briefly refer to only a few of the more prominent *rôles* in the forensic drama (too often a farce), in which he is often forced to play his part, and in which though he may be repeatedly *encored*, he seldom elicits applause

At the present time, and in the eyes of most communities, the plane to which the medical deponent and expert has at last gravitated is but little above that of the ordinary, if not the partisan, witness

The light of scientific truth he sheds is even sometimes suspected as coming with bent and refracted rays through the distorting lens of self-interest and a paid opinion

From circumstances which condition his testimony, he seldom now occupies in this country the honorable position of *amicus curiæ*, or friend and instructor of the court on scientific questions, upon which may rest an important judicial decision He is almost invariably presented as the medical witness or the medical expert in behalf of one side or other of the case upon trial

He is cited to appear as a witness in its behalf more frequently, not because he possesses superior knowledge of the scientific truths about which his testimony is to be conversant, not because his medical opinion *per se* is entitled to more confidence than that of another, and, still less frequently—we could hope, never—that he has been suborned, but he is often selected because, with a certain standing in the community, he is known to hold opinions, or can be made, on the representation of the attorney, to adopt opinions favorable to the side on which he is to depose Quite often his only claim to the character of a medical expert depends upon a summons thus conditioned The reliance upon medical testimony and, in time, confidence and respect for the medical profession, must necessarily be depreciated by such exponents of them both

Professor Washburn, of Cambridge, quotes the following words of Lord Campbell in addressing the House of Lords in regard to scientific testimony in general "What are called scientific witnesses come with such a bias on their minds to support the cause in which they are embarked, that hardly any weight should be given to their evidence'

Without further general remark, I will here refer more or less briefly to the three principal positions or attitudes in which, as professional men, we most frequently stand related to the tribunals of law viz first, as the medical witness, secondly, as the medical expert, and thirdly, as a defendant in suits of malpractice

In each one of these relations it could readily be shown that the medical man labors under disadvantages which do not, in the same degree embarrass either the testimony or the defence of any other class of citizens This is not the occasion to enumerate them, much less to put them under discussion They have been long and fully recognized by the members of our own profession, while some of the most profound and astute minds of both the bench and the bar have diligently studied and yet have failed to remove them For the deponent, whether medical witness or expert—and here we can consider them together before the jury—these difficulties often arise from the unlimited number and diversity of facts, and sometimes of principles, necessarily used as predicates for medical induction, and from the unavoidable complexity apparently connected with the reasoning by which conclusions, often perfectly legitimate, are arrived at Thinking in technicalities, he is yet called upon to express himself in the plainest vernacular, often before an ignorant jury, or at least in terms simplified for the ready comprehension of non-professional minds

This last requirement is often violated, not always from a pedantic inclination, but from embarrassment under the novelty of the situation and from the little familiarity with and thought given to questions in forensic medicine and to the object of medical testimony as being instruction to the jury.

He may be like Moses, "learned in all the wisdom of the Egyptians," but if he deposes only in the Egyptian dialect, only an Egyptian jury can be enlightened by him.

Not alone in our own country, but at a still earlier date, and apparently with even a more sedulous care, have the forensic wisdom and ingenuity of foreign judicatories been exhausted in various attempts to elevate the position and to render more available to the ends of justice and equity the scientific witness and expert. Prussia, recognizing the evils of ignorant and unworthy experts in the medical profession, as well as in all others, from which scientific testimony has to be elicited in grave questions pending before the courts, has a toxicologist appointed by the government and a permanent commission of experts in matters connected with medical science. In Scotland medical witnesses are said to deliver their examinations in writing, but are subjected to oral cross-examination before the court; in France the judges decide who shall act as experts in certain cases, also what questions shall be submitted to them, the answer being returned to the jury in writing, "and practically it is said to have the weight of conclusive evidence."—*Washburn.* "In England," continues Professor Washburn, "much speculation and various schemes have been suggested for obviating the objectionable features of expert testimony, but thus far without the adoption of any system."

It will be seen that all these efforts, both in the United States and in the several countries of Europe comprehend all scientific experts, and among them the medical deponent. They are not made in behalf of the witness, either to elevate his position or, except incidentally, to recognize the high order of his testimony, but only to guard against his oft-time ignorance and unworthiness, and to make his testimony available to the courts. In most of the European courts mentioned, however, there is an incidental protection given to the scientific medical witness from the assaults and indignities offered by the examiner and the advocate.

In the United States, even this incidental protection is rarely enjoyed by the medical profession. Often each side calls its medical expert, and his testimony, whether scientific or ignorant, impartial or partisan, is dealt with in open court by the advocates and examiners, at whatever cost to the witness, so that it can be made only to subserve the interest of one or the other side. Quite often the cause of justice is lost sight of, the significance of the deposition prevented by the artful methods of the examiners, and the casting of doubt on its credibility by the advocate.

He is, as a witness and also as an expert, subject in his deposition to the arbitrary and sometimes offensive and often irrelevant interrogation of the interested attorney whose duty it may become to misinterpret or to suppress the significance of his testimony, and not infrequently to wrest it to the ends of that which, though the common practice of the law, are not the ends of equity and justice. In this way can the profoundly scientific and strictly conscientious medical witness or expert, on account of the inherent difficulties of his deposition, as before stated, more than any other class of witnesses, be made to appear to the average jury and to all ordinary minds present in the light of a crafty charlatan—the tool of some hidden interest guiding and directing his testimony.

Albeit the situation is one of grave and deplorable falsity and humiliation, I may here for its aptness, perhaps not improperly indulge in what might otherwise be considered a facetious illustration of this perversion and suppression of medical testimony to the nullifying of justice, and, "for the nonce," to the degradation of the medical witness and expert in the eyes of the jury and "all spectators." The incident is accurate in all essential particulars.

A DOCTOR IN COURT.

The case was one in which the wife had been accused of causing the death of her husband by poison — all attendant circumstances and testimony in the case confirmed the suspicion; and, lastly, arsenic had been found in abundant quantity, by careful and laborious analysis, in the stomach and tissues of the dead man.

The medical expert was one of the most conscientious and distinguished members of our profession and a founder of this association, and, withal, "as mild a mannered gentleman as ever"—had his throat cut, or his testimony scuttled before an American jury.

The advocate for the defence was one whose name, if mentioned, would at once be recognized by all present as one of the leaders of the American bar and a statesman of the land, and withal, one of the most powerful criminal lawyers that ever swayed the minds of a jury in behalf of the accused.

Scene.—The crowded court room, many counties distant from the homes of both the medical witness and the advocate.

Lawyer. Are you a physician?

Medical Witness. Yes.

L. You are a professor in —— college?

M. W. Yes, medical college of ——.

L. What chair do you hold?

M. W. Chemistry and Pharmacy.

L. Are you in the habit of analyzing for arsenic?

M. W. Yes.

L. Do you often find it in cases when called upon for your testimony in court?

M W I have repeatedly found arsenic, or other poison in the stomach of such persons

L, *with emphasis* Have you ever failed to find the poison?

M W It has so happened that in the cases I have examined, the existence of poison had been circumstantially made out, and my analysis established the fact

L You have always detected the arsenic, doctor, in such cases?

M W Yes

L May it please your honor, we are satisfied with the witness

Medical witness retires

This was the cross-examination, and this lawyer for the defendant had the closing argument No further questions were asked the witness He had shown to the satisfaction of all intelligent persons present that he had, in a most scientific, conscientious and expert method, supplied the last and convicting link in the unbroken chain of evidence required to establish the guilt of the accused

This was the attention the lawyer gave to this medical expert testimony

"Now, may it please the court, as to this medical—what they call 'expert testimony' Consider the facts He is a doctor, he is a professor in a college, his chair is chemistry and pharmacy

"Gentlemen of the jury, he is in the habit of testing for poison—he is the arsenic hunter and arsenic finder for his college, and, you see, he is a good one, he *always* finds the arsenic He is obliged to find it—it would ruin his college and ruin him if he did not find it, but, gentlemen of the jury, I appeal to you as intelligent and scientific men, you are not going to allow my innocent, unfortunate client to suffer to support the credit of that college!"

The murderess was acquitted by the jury almost without leaving their seats, as any one who knew the giant of an advocate she had might well have expected

This was *perversio veri*, as well as *suppressio veri*—not by the witness, but by the lawyer

The medical deponent was, in his own way, almost as great a giant as himself, but he was a doctor in the court, and there he was a giant *bound*

EXTORTED TESTIMONY

Among many other burdens under which, as a witness, the medical man at present labors, is the *hard lot* imposed by that principle of *Common Law*, still existing in most of our states, which declares that the necessary confidential revelations of patients to their medical advisers, however sacredly held by the physician, are *not* to be regarded, in the courts, as "privileged communications" It reads thus, in exact legal terms, as I find quoted by Prof Christopher Johnson, of Baltimore (Trans Med and Chirurg Faculty of Maryland, Vol 1874–1878) "Protection is not extended to *medical persons* in regard to information which they have acquired confidentially by attending in their professional characters" "Greenleaf on Evidence" "The privilege is not accorded to clergymen, although contended for chiefly, if not wholly, in reference to criminal conduct and proceedings", "Rome punishes the priest who reveals penitential confessions, and Mascardus states that the confession is made, not so much to the priest as to the Deity whom he represents, and that therefore the priest, when appearing as a witness in his private character, may lawfully swear that he knows nothing of the subject"

A very different character is here brought to our minds in the person of one of the witnesses in the trial of Queen Caroline As we have it stated, "the trial proceeded, and the first witness was Zoodoro Majocchi, postillion to General Pino If his evidence in chief was believed, he proved abundantly enough to establish the guilt of the Queen, but he entirely broke down when cross-examined by Mr Brougham, and to questions respecting matters of which he must have had a lively recollection, the only answer to be obtained from him was '*non mi recordo*,' which passed into and still continue household words in England for denoting mendacity" ("The Lives of the Lord Chancellors", Vol X p 297)

But neither the conscientious and authorized evasion of the priest, nor the mendacious one of this government witness will answer as a refuge for the doctor in the court, he must either betray the most sacred trust upon the assumed existence of which rest all the unquestioning revelations of all his patients, or he must pay the penalty—ordinarily fine or imprisonment—of "contempt of court," by boldly and honorably refusing to appear

I believe it to be, however, the natural impulse which soon becomes the habit, more or less, of every honorable physician to forget, as far as may be, all that occurs in his professional relations with his patients, except such points as relate directly to the nature and treatment of the case These points only recur to his mind when brought again into professional relations with the patient Of many things left as a strong impression in the minds of the other party to the interview, I doubt not both he and the priest might conscientiously answer "*non mi recordo*"

But we will continue the legal dicta upon our subject "In regard to *professional* communications, the reason of public policy which excludes them applies *solely* to those between a client and his legal adviser"—*Greenleaf* "The foundation of this rule," says Lord Chancellor Brougham, "is not on account of any particular importance which the law attributes to the business of the legal professors, or any particular disposition to afford them protection, but it is out of regard to the interests of justice, which cannot be upholden, and to the administration of justice which cannot go on without the aid of men skilled in jurisprudence, in the practice of the courts, and in those matters affecting rights and obligations which form the subjects of all judicial proceedings "

"This 'privilege' extends to all papers or other communications, all letters written or entries made by the attorney in his capacity of legal adviser, it extends to all communications made by the client to his attorney, though under a mistaken belief of its being necessary to his case Every mark or record of a nature relating to, or for the purpose of professional advice or aid upon the subject of his rights and liabilities is placed *under the seal* of the law, which, once fixed upon such communications, *remains forever*, unless removed by the party himself in whose favor it was there placed "—*Greenleaf*

Johnson It is plain, then that *practically* the private communications from the patient to his medical adviser are the only ones that ever become the subjects of extorted testimony, for it is a matter of general knowledge—and the ecclesiastical foundation is heretofore shown—that the devoted members of the Catholic priesthood will welcome fine and imprisonment, and the stake itself, before they would betray one item of penitential revelations made in the confessional To our honor be it said, in sentiment at least, the medical profession is little or not at all behind them in faithfulness to its sacred trusts And yet, in some of our states, the hardship is still greater and the penalty more inevitable, perhaps, with the physician than with the priest "As the law now (1878) stands," says Dr Johnson, "'the medical person' so confided in has no protection in the law, even if the judge choose to overlook his refusal to appear, the doctor, like any other ordinary witness, may be prosecuted for damages sustained by the party calling him, if it can be shown that by the withholding of testimony the party's interests had suffered " Greenleaf It is pleasant to find that in the statutes of some of the states a complete *reversal* of this principle of the common law has been made At an early period the enlightened state of New York began to manifest a liberal and humane state-craft upon this subject of confidential communications In June, 1813, DeWitt Clinton, mayor, in the court of general sessions, ruled that "no minister of the gospel or priest of any denomination whatsoever *shall be allowed* to disclose any confessions made to him in his professional character in the course of discipline enjoined by the rules or practices of such denomination", and by the revised statutes, "no person duly authorized to practice medicine or surgery *shall be allowed* to disclose any information which he may have acquired in 'attending any patient in a professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon", and by the second revised statutes, "information disclosed to a physician while attending a patient in his professional capacity, which information was necessary to enable him to prescribe for his patient, is declared to be a confidential communication, which the physician is not allowed to divulge without the express consent of the patient, for this is the privilege of the *patient* and not of the medical adviser "

"In Missouri, Michigan, Wisconsin, and Iowa statutes of the same effect have been enacted " —*Greenleaf* The above was the progress made by the several commonwealths in this country up to the period of the publication of the valuable statistics, from which I have so freely quoted on this branch of my subject There could be no more seasonable time or any better method or opportunity than this offered in the present meeting of representatives from all the states to procure in the near future the exact state of the law as regards extorted testimony in the various states at the present time

That this principle of the common law, unrelieved by any statute in most of our states, conferring "privilege" on the confidential communications of patients to their medical advisers, deeply concerns the interest of communities, and is a constant and degrading challenge to the honor of our profession, we all must deeply feel

I have presented *Extorted Testimony* as one of the many anomalous phases of our relations to the tribunals of law, all of which relations, with another yet briefly to be presented, require our early, earnest, and systematic consideration

THE MEDICAL DEFENDANT

There are many conditions of professional life in which the medical man may become a defendant, either justly or falsely accused It is, however, in suits for malpractice that the danger and the evil have, in the course of years, grown so unpleasantly familiar to the medical profession

The scientific, skilful, and faithful surgeon particularly should he be known to possess means to meet damages, no less than the ignorant and unscrupulous pretender, is constantly liable to have laid to his charge often the unavoidable results of injuries, as the consequences of either incompetence or neglect

Unavoidable deformities and disabilities remaining after the treatment of fractures and dislocations have been made the most frequent occasions for arraignment of the surgeon, and in complicated cases of fracture the prudent and circumspect surgeon cannot entirely dispel from his mind this *bête noir*—this phantom, which may grow into a reality, to destroy his peace and cast a blight upon his reputation and his fortune

My own first experience in the courts was in 1842, that of a medical witness in defence of a most distinguished member of our profession—my master in surgery, Paul F Eve, afterward president of this association, in a groundless suit for damages laid at $20,000

The case, a comminuted fracture of the patella, resulting in gangrene and amputation

Able counsel was engaged, and though the suit was abandoned after the taking of testimony, the loss of time, cost in fees to lawyers, and temporary injury to reputation, summed up an amount of personal damage difficult adequately to estimate.

At various times and in different medical bodies, this question of malpractice suits has elicited attention. In 1856 the committee on surgery, Dr. J. W. Hamilton, chairman, reported to the Ohio State Medical Association that in their opinion, the subject of malpractice was at that time of more importance than any other connected with surgery. "There is a standing and apparently a cumulative evil—an evil bearing with the weight of an incubus upon the profession. It is the frequency of difficulties on account of alleged malpractice in the treatment of fractures. . . . during one week in as many counties, four cases were tried."

I think on examination of the record of the courts in the various states, and also from frequent communications, both private and in published correspondence in our journals, we may safely say that the evil is but little or not at all diminished at the present day.

It had been my design to give extended attention to this evil, than which no other more strongly characterizes the relations of the medical man to the tribunals of law, but the space already occupied with the relations of the medical witness and the expert admits of no further addition here to this address. The evil is, however, unfortunately, too widely recognized and keenly appreciated in our profession to require either elaborate presentation or extended comment.

A SECTION OF FORENSIC MEDICINE

There are certain departments of medical science which apparently have no *special body of facts*, so to speak, which may be regarded as intrinsically their own. They are based, and often very *broadly* too, upon the facts and developments which specially pertain to some other department, and sometimes to many other departments of knowledge and practice growing out of them.

The science of sanitary medicine is a department preeminently of this kind, hence it could have had no separate existence until after advanced progress had been made in such branches of investigation as those upon which we now find it expansively based.

"Modern sanitarians," says a recent writer, "do not pretend to lay claim to the origination of the knowledge that preventive medicine has utilized in the establishment of its principles, or in the efficient application of the measures to secure the public health. The rapid advances which curative medicine has made in the study of the causes of disease, whether atmospheric or telluric, also the rapid strides in pathology and in the discovery of disinfectants—all have contributed largely toward the present satisfactory status at which sanitation has arrived."

Forensic medicine in this respect is just such a department as sanitary medicine. It has no body of facts especially its own, and while it has wide and intimate relations with all the branches of science, it is individually the province of none of them. It depends upon bringing them all, when necessary, into combined relation with law, as sanitation has brought them into combined relation with the public health, and with the hygiene of communities.

I am aware that in the not distant past medical jurisprudence was, in some sort, comprehended in the scope of the regular sections of this association, affiliated with chemistry on account of its frequent relation to toxicology, or with psychology on account of its perhaps more frequent exercise in questions of insanity, or with surgery, on account of the appeals made to it in suits for damages after the treatment of fractures, or again, with obstetrics, because criminal abortion or bastardy may give rise to questions of law it would, in any one of these individual associations be curtailed of its domain, dwarfed in its dignity and perverted from what should be the comprehensive and beneficent intent of the department of legal medicine as an object worthy the study and cultivation of this association.

As recognized by this association, the Department of Forensic Medicine should comprehend all the subjects as referred to in these several departments, but besides them, every question or occasion through which the medical man can be brought into relation with the tribunals of law, whether as a medical witness, as a medical expert, or as a medical defendant, or in time, when he shall have attained to his true dignity as *Amicus Curiæ*, or adviser of the Court, his dictum equivalent to conclusive evidence, his scientific wisdom worthily rewarded as enlightenment, indispensable in the upholding of justice, and his profound and conscientious opinion accepted with the same unquestioning confidence as to its integrity, as that which is yielded to the judicial ermine, and the charges from the bench.

In the organization and subsequent changes of the sections, medical jurisprudence seems at last to have disappeared as a fully recognized platform for our readings and discussions. There can be no one who values more highly than I, or recognizes more fully the dignity of every subject, even be it on the very outskirts of the domain of medicine, but none can be of higher importance in the present and the future, than attention to our concern in the Department of Forensic Medicine. I would not wish to appear either invidious or irreverent, when I charge you. Let us still in our deliberations continue to "pay tithes of anise, and mint, and cummin, but among them all, let us not neglect the *weightier matters of the law*."

In conclusion, gentlemen, I would with great deference recommend that a committee—of which I would ask to form no part—be appointed to consider the expediency of organizing, or of rehabilitating a section of forensic medicine, for the reception and discussion of papers and reports on all subjects conversant about the important but at present anomalous, and little understood relations of the medical man to the tribunals of law

In time, may we not be able to prophesy of legal medicine, and in the words of the now almost mythic Seneca the day will come, when those things which are now hidden shall be brought to light by true and persevering diligence—our posterity will wonder that we should have been so ignorant of that which is so obvious

ORIGINAL ARTICLES.

MEDICAL LEGISLATION—THE ANNUAL ADDRESS BEFORE THE ASSOCIATION OF AMERICAN MEDICAL EDITORS[1]

BY HENRY O MARCY, A M , M D ,

OF BOSTON MASS

In our modern civilization the public press holds and wields a power in the development of thought and shaping of opinions, equalled by no other of all the complex forces of government This power is so omnipresent and far-reaching, that the village or hamlet is indeed very remote that does not receive and discuss the dominating thoughts of the world's great centres of civilization, within the day upon which they are first published We do not wonder that journalism makes a large bid for the best talent, or that it has been the highest ambition of many of our most learned men to spend their lives in addressing unseen audiences, moulding the well-springs of human thought through this magic of the black art The fundamental principles for the right government of the public press, in a free country, must ever be simple and may be abstractedly stated, as the attainment of the highest good of the individual Thus, upon all general questions there must ever be a commonality of interest, and press associations are eminently proper and profitable

In a great and rapidly growing country, like America, the medical press is, in a specialistic way, of equal influence in the diffusion of knowledge, the elevation of the standard of attainment, and, in a generous rivalling, developing a spirit of noble brotherhood in the profession In this spirit this Association was founded Let its members see to it that, as the American Medical Association has grown in influence and power, so may these annual meetings of medical editors prove a source of inspiration, of energizing force and influence

Every physician contemplates with satisfaction the progress made in his profession within the last generation, the rapid strides towards a true scientific foundation upon which to build more broadly the superstructure of the healing art The lawyer does not deem it necessary to confine himself alone to his specialistic study and practice, the rather does he find it to his professional advantage to enter the public arena and become, if possible, the leader in every public work which holds an interest to the community in which he resides From another platform, he who administers to us in sacred things is not alone the guide to holy living, but is expected to take into review all the general questions affecting the welfare of the race, and pass thereon a more or less critical opinion The physician, however, who broadens out his phylacteries beyond the physical well being of the community, does so at the peril of his professional reputation and pecuniary sacrifice

For this the profession holds no cause of complaint The rather do its members the more willingly sacrifice at the shrine of their devotion all other ambitions as unholy, unworthy to be weighed in the balance, but minister to wrecked bodies and broken spirits for their mutual rebuilding, more or less closely copying the model of the Great Master However varied the problems and kaleidoscopic the changes, there is always centred therein the fixed factor, the unknown quantity of the equation, life itself In the true teaching the disciple of such a calling must have a thorough and generous general education, and the medical colleges are now yearly demanding in preparatory training a higher standing of medical attainment What shall be the standard of medical knowledge before graduation to practise the art and assume the responsibilities of life itself, in comparison with which every other consideration pales into insignificance? This question has very properly been relegated to the profession, since it can be wisely determined by no other tribunal, but can any subject be of an interest more vital to the well being of the individual or to the community? The relation of the physician to the public is a theme never lacking in interest, and very properly, since under his ministrations we are ushered into existence, our follies and their penalties intrusted to his knowledge and care, the serious infractions of our physical laws re-adjusted by his skill, and our latest agonies watched over, as the mysteries of our being again become shrouded in the impenetrable veil of the future This leads me to certain phases of the converse of the proposition "The Relation of the Public to the Physician," and this, from the legal standpoint, is the theme to which I would to-night invite your most serious consideration In the first place, the demand for the education of the physician has been publicly recognized by the establishment and, in part, maintenance of medical schools and colleges, this in common with the general requirements of the other learned professions Of course, this has been in large measure moulded and the material equipment furnished by the profession itself much more largely than in any other class of special training America must be judged, however, from a different standpoint than Europe, since here, beyond the general system of fundamental teaching, the state has left the supervision of the higher education almost entirely to private parties, under corporation privileges and restriction, rather than by fostering their support Gifts, other than from medical men, in large amount, for the better education of physicians are, in America, very exceptional The Johns Hopkins University, owing to the extraordinary liberality of its founder, gives promise of splendid advantages in its medical and biological teaching The recent munificent gift to New York of America's railroad prince, Wm S Vanderbilt, is a splendid recognition of the value for the public good which a liberal-minded citizen places upon the right training of medical students Although we sadly lack in America the great central universities for the higher training which so justly distinguishes the older European civilizations, it cannot be said that our country is wanting in number, at least, of medical schools and colleges For many reasons not pertinent to our present inquiry, we can but think that the supply, such as it is, has greatly exceeded the demand From the above and other reasons, which, with equal pertinency, might be offered, it is not difficult to accept as fact that there is, by the public, a general recognition and demand that those who make it their profession to attend upon the sick, should have special training therefor The recognition of this special fitness has been openly expressed by the granting of so called "degrees" by the schools, which are, in turn, under the guidance and control of the various state governments So that a degree is, by so far at least, an official state recognition of the holder as commissioned to practise his calling The title of "Dr," once given, clings to its possessor with the pertinacity of fate No matter how early he relinquishes his profession, or what his subsequent career, like the little brown jug of poetic history, this convenient handle is never disassociated from his name If it is really true that the public hold the title of "Dr" in such affectionate and high regard, it would seem that they should grant it to none unworthy, and, like the judges of the Supreme Courts, allow its possessor to hold office only during good behavior That they have just reason to regard the value of medical service there can be no question The medical profession, in all ages and countries, has been recognized as public-spirited, devoted to the general good, the prevention as well as cure of disease The greatest gain in modern medical science has undoubtedly been in the self-sacrificing dangerous study of the causes of disease, and preventative medicine has developed into a branch now universally called sanitary science Can anyone overestimate the incalculable advantage to the state of Massachusetts, which has resulted from the untiring industry, devotion, and genius of a Bowditch, a Derby, a Folsom, a Wolcott, and many others, in developing a state medium which has given to one old commonwealth fame and made her methods models, in Europe as well as in America!

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[1] Delivered Monday, April 27, 1885

The limitations of legislative enactment for the protection of the individual has and ought ever to be a question of the greatest interest This has been guarded with a zealous care in our republic from the beginning, where the individual rights of the citizen have justly been considered the great cornerstone of liberty However, there are certain limitations of individual privilege, inimical to the public good, which are generally conceded Thus the law guarantees, under certain penalties, reasonable individual safety in the passage upon the public highways, often looked upon by property holders as onerous, safety in the proper construction of buildings, the enactment of sanitary laws, the protection of the people from the sale of adulterated milk, unwholesome and improper food, restrictions upon the sale of drugs poisons, etc, and the rights of women, of minors, of the insane, are carefully guarded

Ought the people to exact guarantees, in their own protection, from their public servants? Under the law, where monetary interests are involved this is universally conceded The bond must be given for the proper execution of the trust Should this pertain to the professions? We complain of lawyers, as a class, and say they too often play the part of the fox in the fable, which divided the cheese for the ravens, but the public confides to their keeping comparatively a minor trust, however great the property interest, yet who would think of employing a lawyer who had not been examined for admission to the bar? Correctly speaking, without such admission he is not a lawyer

We feel that he who ministers to us in sacred things must be touched with the divine afflatus of his calling, yet even with such prerequisite, who would consider this all? He rather must be drilled and schooled by long years of study before he can worthily become the public teacher, the wise, trusty adviser Not a man attending our great Association held here this present week, but has called to his aid the motor forces of steam, this modern miracle of transforming, civilizing power of our century, yet who would have invoked Heaven's blessing on his journey, or have quietly retired to his slumbers in car or cabin, unless he had reason to believe a trusty, trained brain and arm held guidance over this force mighty to destroy as well as serve? The attorney-at-law practises in open court, under the scrutiny of an opponent and the direction of a judge, yet these are not considered sufficient safeguards to the noble profession counted a synonyme of justice, each applicant to practice must be examined and, after admission, complaints of improper conduct made against an attorney-at-law are inquired into and, if found of sufficient importance, his license may be revoked The physician holds, on the contrary, a far different relation to his client Assuming that both clients are equally ignorant upon the subject for which they seek advice, the one, at the worst, is under the influence of his passions, the other of disease, the one capable to judge with his usual wisdom the general conditions of the problem, the other in a possible perversion of every faculty The physician advises for the most part in the solitude of the sick-chamber, unwitnessed by opposing council, unwatched by learned judge The one advises upon questions of necessity of a lower order and value, the other takes into his keeping the vital interests of life itself Therefore, granted that the average honor and moral restraint are equal in both professions, the deduction seems clear that the medical practitioner, if either, should be held by law under the closer supervision This question is by no means new and only theoretical Testimony from experience, actual, long continued practical working of law, is abundant The older civilizations of Europe have, for centuries, held in careful control the welfare of the people, by allowing no one to assume the title of "Doctor of Medicine" and practise his profession until he has given evidence of his fitness therefor by examination before a proper tribunal I shall never forget my indignation when I found, during my residence in Germany as a post-graduate student, that not a single apothecary in the great city of Berlin was allowed to fill my prescription given a sick friend I fear I contrasted unfavorably the royal mandates of Prussia with the wider democratic liberties of our own republic

The Dominion enacted a wise law for the regulation of the practice of medicine, which has continued in most satisfactory operation This led to the inauguration of a general movement in the United States, which has already resulted in more or less efficient legislative supervision in the larger number of our states A careful digest of these laws has been made by Dr John Rauch, of Illinois, and published in a very convenient handbook The American Academy of Medicine was organized for the especial purpose of elevating the standard of medicine in America The very efficient secretary, Dr Richard J Dunglison, of Philadelphia, has made careful annual reports of the operation of these laws in the various states The exceedingly valuable work accomplished in Illinois and West Virginia, chiefly through the enterprise and indefatigable labors of the secretaries of the state boards, Drs Rauch and Reeves, are known to you all Several of the other states are agitating the question, the present year, before their respective legislatures Prominent among the number is our old commonwealth of Massachusetts

The history of legal medicine in this state has more than a local interest, and a brief review will prove instructive

The Massachusetts Medical Society was incorporated in 1781 It was given "corporate powers, authorized to sue and be sued, to elect to membership, to suspend, expel, or disfranchise members, to make laws for the government of the Society, and was also authorized to issue letters testimonial, under the seal of the Society, to such as were found skilled, to the approbation of the examiners, as medical practitioners A penalty of one hundred pounds sterling was fixed upon the Society and its officers if they should obstinately refuse to examine any one who presented himself for examination" In 1788 it was required "to prescribe such a course of medical and surgical instruction, and such qualifications, as they should judge requisite for candidates for the practice of physic or surgery, and to cause the same to be published annually in one or more newspapers in each of four medical districts provided for in the state" In 1802 "the examiners and censors of the Society were required to examine all who should offer themselves to be approved as practising physicians or surgeons, who had received such an education as was, or might be from time to time, prescribed by the regulations of the Society" An applicant need not be a graduate of any college, but, "anybody who came up to the published standard was entitled to examination and to be licensed if found qualified, and they were required to give every candidate whom they should approve a license to practise physic or surgery, or both"

In 1819 the Massachusetts Medical Society was authorized "to appoint examiners in each county, who should examine all applicants who had pursued the course of study required by the Society, and give license to such as were found qualified according to that standard, and also provided that every person licensed by the Society to practise, should file a copy of his license with the town clerk of the town where he practised" It was further provided by an act in 1818, that "any person who had been admitted to the practice of physic or surgery out of the commonwealth, and had come into it to pursue the practice of the same, might present himself to either of the boards of examiners in the various districts as a candidate for examination, and if they were confident that the candidate had received an education agreeably to the regulations provided by the Society, they might license him without subjecting him to a new examination" In 1819, act in addition to said act, which provided that "no person entering into the practice of physic or surgery after the first day of July, 1819, shall be entitled to the benefit of the law for the recovery of any debt or fee for his professional services, unless he shall, previously to rendering these services, have been licensed by the officers of the Massachusetts Medical Society, or shall be graduated a doctor of medicine in Howard University"

This interesting chapter in the history of the legislation of Massachusetts must be considered only in connection with the development of medical learning in America When the Massachusetts Medical Society was organized and for many years after, the larger number of physicians were taught only by the method of preceptorship, a kind of indenture, so to speak, by which the student was taken into the family and taught the various branches of his art, the compounding of medicines included A very few of the more favored class were graduated from the European universities As centres of medical teaching developed and degrees were granted therefrom, the necessity for such supervision by the Society became less, and as we have seen, in 1819, by legislative enactment, the degree of doctor of medicine from Harvard University was considered as equivalent to the license of the Society, since both were under state supervision In the revision of the Gen Statutes in 1859 the power to prescribe a course of study and determine the qualifications of physicians and surgeons was omitted in the new codification, since it was assumed that the colleges were in ample power and constituted better custodians of such requirements Much emphasis has been placed upon this history of legislation, and it has been declared that Massachusetts has had experience which caused her to revoke any and all laws looking to the supervision of the practice of medicine At the most this is a bare inference, and so far as I have been able to ascertain, no case ever occurred where it was even charged that the authority conferred upon the Massachusetts Medical Society was in any manner used to the detriment of the public good Hon J H Benton, Jr , a learned counselor of law in Boston, made a long and labored argument, March 6, 1885, before the Committee on Public Health of the Massachusetts legislature, to whom this question of legal supervision of the practice of medicine had been referred (I am told the service was rendered for a very large fee, paid by a much advertised "Professor" from New York, who favors Boston with his learning since the registration law of New York prevented him from longer practice in that metropolis) Even Mr Benton failed to find a history of detriment to the public good during the more than two generations of the supervision of the Society under legal requirement He further states that we have got on very well in Massachusetts for the last quarter of a century without state supervision This can only be accepted as a lawyer's interpretation, for the facts are too extraordinary for recital In Boston alone there are a larger number of so-called doctors who are offering their services to the public, who have not graduated from a reputable medical college, than all the graduates of the various schools combined But this is not the worst side of the lack of legal supervision Even houses of disrepute are covered by the name of "Dr ——," and our newspaper columns contain advertisements, under the guise of so-called medical treatment, which mislead and bring to ruin, soul and body, multitudes of both sexes Abortionists, despite the penal code, flourish at the low fee of ten dollars, so rarely are there convictions under the present laws One Mrs Bemis came to her death from having been for a period of two or three days kept wrapped in flannel saturated in kerosene oil, by the order of one "Dr " Pierce Conviction followed under the ruling of Judge Pitman "It is not necessary to show evil intent, if by gross or reckless negligence the defendant caused the death, he is guilty of culpable homicide " A sentence of six years in state's prison was rendered

From this it has been argued that under the existing law the protection is ample Shall we be content to say, Why care we for thieves if they are punished for their depredations? It is not alone "negligence, even if gross or reckless," from which the public should seek protection, but the rather ignorant men unfitted for their calling, the malicious and designing who seek out the thoughtless and unwary to their detriment and injury

Let the title of "Doctor in Medicine," the name given by the schools to the graduates of the universities during the centuries, be a guarantee to the public that the one who assumes such title has in evidence thereby been, in a certain degree at least, fitted for the responsible position of attending upon the people in their illness Let this title again be further qualified by state supervision, that the public may have further guarantee of fitness This, in my own judgment, is the first requisite of legislation, and if all others be prevented from assuming to practise medicine under this *title*, the protection of the public interest is ample The first appears simple and fundamental, the second demanded, because in the multiplicity and rivalry of the schools of medicine the state standard of requirement will be much more likely to secure uniformity and excellency of qualification This subject is by no means, as has been so often asserted, a question between the different schools of medicine It is the differentiation between learning and ignorance, competency and incompetency Says Mr Benton "If he does not cure me, if he is negligent, if he has not the skill which he assumes to have, why, then, he is liable to me in damages If he is grossly and wilfully and presumptuously ignorant and negligent, and he injures me, he is liable criminally I need no other protection The people need no other protection "

Does locking up the thief return the property, the incarceration of the incendiary rebuild the house, the hanging of the murderer restore the life? We punish to restrain and prevent such crimes Would the public justly tolerate a class trained to steal, burn, or murder? Is it supposable that the shipwrecked crew would excuse the pilot who claimed he did not know the water in the channel was not sufficiently deep to float the noble ship with her priceless cargo? It was his business to know

The fallacy in the arguments of nearly all who have opposed legislation is the unproved and unwarranted assumption that a certain limited class of physicians, stigmatized as "old-school" allopaths, regulars, etc, are the only parties interested in securing such legislation Nothing is further from the truth, and it is my own conviction that, aside from the desire which should actuate all honorable men to lessen, as far as possible, a recognized evil and to elevate a profession, with the honor or shame of which they are indissolubly connected, few, if any, would be found to advocate legislation except as a most disagreeable duty At the annual meeting of the Homœopathic Medical Society of Massachusetts, held last month in Boston, the president, Dr J H Smith, in his address said "The profession in general and a few of the leading medical colleges recognize that this country is overrun by a swarm of incompetent practitioners The more influential societies of America have united to raise the standard of medical education, and also of admission to professional studies The day is approaching when, with justice, physicians may ask protection of the state of the special title of 'Doctor of Medicine' from being dragged in the mire of ignorance and sloth, and no one can fairly object to the passage of a bill providing for the inspection of diplomas and a proper registration Whenever this shall be accomplished they may properly be regarded as members of the public service, and as such, a kind of board of health at large, having definite powers and entitled to adequate compensation in the courts, to exemption from jury and military service, and to protection against the assumption of their distinctive title, 'M D,' by people without inspected and approved diplomas" This society has unanimously petitioned the present legislature for some act of supervision of the medical practice within the state Dr John Perrins, in the annual address upon "Medical Legislation" before the Massachusetts Eclectic Medical Society in 1882, said "To enforce colleges to do their whole duty should be the first step taken by our law makers After that is done it should be then a criminal offence for a person, under any circumstances or for whatever purpose, to make use of any title which is granted by a legally constituted college or body to which he is not duly and properly entitled The province of legislation in a free country like our own is to protect the people from deception and fraud The competent men of any school or business, the world over, do not need protection, and it would be both injustice and an injury to the people to have incompetent persons forced upon them by a monopoly We have laws in operation which will not allow the grocer to sell chicory and call it coffee, oleomargarine, and call it butter, but he may sell either for what it is In this way the people are protected from fraud, and yet their rights are not interfered with in the least, neither the buyer nor the seller has any just ground for complaint Why can we not have the same law applied to the practice of medicine? I would not interfere with any persons entering upon the practice of medicine who wished to do so, but I would compel them to place themselves before the people in their true colors, reserving to the people their right to employ Thomas Jones or Mary Brown to treat them when sick, if they preferred"

I have quoted more fully from this thoughtful address, since it was written in *opposition* to medical legislation for the avowed distrust which he, as a practitioner of eclecticism, had in cooperation with other societies, to secure that which he so freely confesses would be for the public good

It has also been claimed that, with all the pretence of medical teaching and the combined learning of the ages, "as yet there is no standard by which you can regulate the practice of medicine" Here again I suppose reference is made to the so-called schools and societies,—ethical differences which necessarily hold little part in the science of medicine

If the *science* of medicine is based upon the knowledge of the human body in health and disease, and the *art* of cure consists in the application of that knowledge to the readjustment and harmonious working of nature's laws, have we not in this a just and well recognized standard for guidance? Is not surgery in large measure demonstrated by an intimate knowledge of a multitude, it is true, but of objective factors?

The sooner the public is disabused of the thought that the medical profession possesses the power, by the compounding of medicines under the split-footed ℞ sign, invoking thereby the benediction of Jupiter, and thus exorcising our physical evils, or granting absolution of our physical sins, by the administration of drugs, the better for all Says a learned objector, "All we want to preserve is the right of every man and woman of full age and sound mind to have such person minister to them in disease or sickness as they wish" This, indeed, should be fully granted However, let every man do business under his right name and title If those claiming divine guidance to cure by the laying on of hands, can restore to health, Heaven speed the effort If so called Christian science brings into relationship the laws of God and man for the cure of physical ill, the sooner its claims are demonstrated the better The contest is with ignorance and evil, not with knowledge or science, which in any of its multitudinous subdivisions of research we are willing to believe is divine, is Christian

Many are the so called *trade marks* in life Medicine, as a science, was supposed to be as broad as humanity and its ills, and, notwithstanding the blundering which is necessary in all experimental research, none have doubted the efforts of the past as equally honest and sincere as those of the present Investigation has never been under the ban of the medical profession, but on the contrary, encouraged ever since the days of the alchemist Homœopathy secured to itself the distinction of an abstract theory, to which few of its followers give more than a quasi-approval Eclecticism claims the power of selection, freely granted since the days of Hippocrates, and yet by a contrariety of terms, this freedom is emphasized by the rejection of all save botanic remedies Our spiritualistic friends claim aids supernal, equal to their physicial salvation from suffering, yet they freely confess it is limited to a narrow working of a hidden force, which as yet they are permitted to see as "only through a glass darkly" As the latest of modern revelations comes the new assumption of "Christian science" These teachings of the Divine Master, at the most but improperly understood, and their benefit lost during all these centuries, until now these new disciples declared the revealed will The assumption is extraordinary Its boldness, very audacity, challenges a sort of admiration and wins favor

I quote from its great feminine apostle in her latest publication "Christian science must be interpreted spiritually, until thus discerned it should not be judged To have fair play I offer to clergymen gratuitous instruction, if they give me this chance I will guarantee they shall understand Christian science sufficiently to demonstrate it conclusively by healing the sick" We cannot wonder such a trade mark, no matter how honestly assumed, brings upon it the denunciation of the leaders in theological teaching, and the only reply to such opposition is fittingly their own, as in their effort to secure sympathy, they, in this nineteenth century, compare themselves to the martyrs of old To limit the Christian workings of religion in science to the cure of disease, an infraction or modification of physical law, must be considered, from any standpoint, at least reprehensible, and most persons would concede that while spiritual things are to be interpreted spiritually, the converse of the proposition would hold equally good Let the laws of petition to Almighty God be better understood, and our faith in a personal deity would be greatly increased It seems but yesterday when the prayers of a great nation were offered for the restoration to health of our late lamented president Garfield The bacterial colonization and development went on, however, under the law of its own reproduction, uninterruptedly, to his death What more pertinent illustration than that of Christ in his rebuke of the tempter, that the law of gravitation should be held in abeyance, in his special instance, by the Father's interposition! If miracles are again to be inaugurated, they should work now, as of old, for the establishment of a principle, rather than for a personal good

We think we have already clearly shown that the supervision of the practice of medicine does not belong to the so-called "class" legislation, but is in recognition of a need as universal as the ills of humanity

It is too late to claim that such measures are exceptional, in the interest of the individual, unconstitutional, etc Twenty six states have already passed laws in remedy of a great evil The supreme courts have affirmed the constitutionality of these measures Last month North Carolina passed an enactment, making her laws regulating the practice of medicine yet more effective The present month, the Medical Examining Board of Virginia held its first meeting, The examination was a written one, and the lists of questions are now published Twenty-five applicants, all but one, graduates from reputable medical colleges, six were rejected

The extraordinary advances in modern medical science have kept pace with other departments of learning Many states have very properly recognized this by the establishment of boards of health, and their efficient working is acknowledged in the diminution and control of disease In the solution of the difficult problems pertaining to the infectious diseases, their laws of development and their control, what wiser service for the public good could our legislators enact, than provisions for their better study and knowledge?

Conservative Germany, as well as republican France, has won imperishable glory and renown, by such investigation, and benefits have accrued deserving the world's gratitude

Aside to the questions pertaining to the physical well being of her inhabitants, untold millions of America's wealth are invested in her flocks and herds, upon ten thousand times ten thousand hills and plains How little do we know of comparative pathology, and how few men have we fitted to teach the lessons of profit to be derived therefrom!

May our new National Board of Health be seconded in its wise efforts, by the profession of our entire country

Let the states provide for the establishment of their own laboratories, for the study of the diseases within their borders May the medical profession, in accord with the history of the past, continue on in the even tenor of its noble calling, content to feel that the highest ambition of its members is found in the alleviation of suffering and the restoration to health, and if an honest man is the noblest work of God, that he must necessarily be *mens sana in corpore sano*

WHOOPING COUGH IN THE FIJI ISLANDS —A serious epidemic of whooping cough has run through the islands of the Fiji group The malady has carried off all the very young native children and left a decrease in the population of 3,000 A few years ago 30,000 persons in Fiji died from an epidemic of measles

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

ON THE INTERNAL ADMINISTRATION OF TURPENTINE IN CUTANEOUS DISEASES —DR H RADCLIFFE CROCKER read a paper before the Hunterian Society, in which he spoke highly of the ordinary oil of turpentine used internally in cutaneous diseases, and considers that all turpentines have a very similar action He gives the details of one case to illustrate the action of this drug in thirty other cases of psoriasis In a few the psoriasis has been completely removed, but in most considerable improvement has been manifested up to a certain point, when, as in the selected case, some external treatment was required for the complete removal of the disease All the thirty cases were taken consecutively, without regard to the extent or duration of the disease or to the general health In only two cases was he obliged to discontinue the drug on account of slight strangury, and in three others the dose had to be diminished on this account, one of these was a girl who could never hold her water more than two hours In all these cases the dose was under twenty minims, and the irritation was not considerable, with the exception of one who did not attend for a fortnight, and kept on with the medicine in spite of the irritation and here there was bloody urine, which, however, stopped in a few days after the drug was discontinued In three, the drug had to be discontinued on account of dyspepsia, which the turpentine aggravated, which led to its discontinuance in all cases wherever there were any symptoms of gastric irritation In several cases there was a decided increase of itching in the eruption at first, but with perseverance for a week or two longer this entirely ceased Besides the well known violet odor imparted to the urine, it was noticed that a copious deposit of urates occurred during the first few days of the treatment, but this soon passed off, and appeared to be entirely due to diminution in the quantity of water

Dr Crocker has used this drug to advantage in about a dozen cases of eczema, but in this disease would restrict its use to those cases in which no defect in the general health can be detected The cases in which turpentine is contra indicated are children under five years old, all who have unsound kidneys or irritable bladders, most cases in which dyspepsia is present, though in some instances it can be tolerated even then, and gouty subjects, whose powers of elimination are seldom good The physiological action in moderate doses is considered to be that of a stimulant of a powerful kind to the inhibitory reflex centre, and to the vaso-motor centre, thereby raising the blood pressure and contracting the arterioles It therefore is not in any sense of the word a specific, and fails to remove thickening and other consequences of long-continued inflammation, which are best attacked by local measures

The mode of administration is for adults and children over ten years, 10 minims rubbed up with an ounce of mucilage so as to form an emulsion This is given, directly after meals, three times a day, and the last dose should not be given within three hours of bedtime In two of his cases there was slight discomfort on micturition in the morning when the last dose was taken after supper, but none when the last dose was not later than six o'clock This is probably due to the proportion of turpentine in the contents of the bladder being much greater when it has been accumulating all night, while some of it is got rid of at the last micturition when the dose has been early in the evening Another means of avoiding irritation in the urinary organs is to make the patient drink barley water freely from the very commencement of the treatment, and the patient should always be impressed with the necessity of frequent diluent drinks In the case related, the urine was reduced to 4 oz while taking 40-minim doses, but was immediately raised to the patient's usual quantity when a quart of barley water *per diem* was given In a few cases the drug was given in capsules, but the emulsion seems less liable to disagree, and but few patients, even among the children, made any serious objection on the score of the disagreeable taste If the improvement is only proceeding slowly or the condition is stationary, and the patient is tolerant of the drug, the dose is increased by 5 or 10 minims at a time up to 30 minims a day It is seldom necessary or desirable to go beyond this, though in three cases drachm doses were given without any ill effects; but the risk of albuminuria or even hæmaturia increases considerably after thirty-drop doses are reached, though, if the drug be stopped as soon as these symptoms appear, in two or three days the urine will have returned to its normal condition —*The Practitioner*, March, 1885

THE THERAPEUTIC USE OF SODIUM NITRITE — R M SIMON, M B, publishes sixteen cases, five of aortic five of mitral, and five of renal disease and one an old man, æt 72, suffering from vertigo without organic disease, in which this drug was administered with marked benefit in all but two of the cases The result was most striking in a case of angina, but was almost equally so in each of the cases of heart disease, more especially those in which the aortic orifice was affected The dose given was one grain three or four times, and possibly, in any case of total or partial failure, it might have been wise to increase the dose, as, with the doubtful exception of one case of purging, no ill effects followed the use of the drug

In the discussion of the remedy Mr Simon refers to the observations made by Sander Brunton in 1870, of Barth in 1879, and of Reichert and Wier Mitchell in 1880 Unfortunately, in Wier Mitchell's cases nitrite of potassium was used instead of nitrite of sodium, thus introducing a source of fallacy, as potash salts act powerfully on all muscular structures, including the heart Dr Hay published in 1882 the best and earliest paper on the use of nitrite of sodium in angina pectoris His observations were all made on a single case, and he was able to show that the nitrous acid was the active agent in all its compounds, except in nitrite of amyl, where the ether has an additional and similar influence All the preparations of nitrous acid have in common the properties of dilating the smaller blood vessels and lowering of the blood tension Mr Simon used it freely in epilepsy, but without success In heart disease he ranks it with digitalis —*Birmingham Medical Review*, Feb , 1885

Poisoning by Iodoform —Dr P Morelli, in the *Gazzetta degli Ospitali*, January 4, 1885, considers 1 That iodoform produces toxic effects when the iodine does not combine immediately and perfectly with the alkalies of the blood

2 It occurs when the quantity of iodoform used is too great, or when the surface over which it is applied is extensive, suppurating, and rich in fatty matters

3 When the blood is not sufficiently alkaline, the iodine combines with the albumen to the great detriment of the organism

4 When the drug is too frequently renewed

5 When the iodoform is applied under a dressing that is strongly compressed

6 When the kidneys are not acting properly, or when the patients are old, anæmic, etc

7 He sees no reason why a mixture of phenic acid and iodoform should not be used, provided proper precautions are taken He recommends, in iodoform poisoning, the use of subcutaneous injections of pilocarpine —*Annales Médico-Chirurgicales*, March, 1885

Rice as a Styptic — Powdered rice as a styptic remedy has a great effect on fresh wounds, much superior to oxide of zinc By mixing from four to eleven per cent of it with lint, and using the lint thus treated as a compress, it is very effectual and more valuable than subnitrate of bismuth, salicylic acid, or carbolic acid —*Dublin Jour Med Science*

Chloroform and Water as a Hæmostatic Agent —Dr Spark recommends highly as a hæmostatic agent chloroform and water, in the following proportions Chloroform 2 parts, water 100 parts He claims that it acts with a rapidity that is truly marvellous, it has not the slightest disagreeable taste, it has no escharotic action, it is always at hand and made instantly, its cost is very slight, and there is nothing disagreeable in its application to interfere with the surgeon In all operations upon the mouth and throat he uses this alone as a hæmostatic Recently in removing a sequestrum from the inferior maxilla, which was of the size of a large chestnut, by its use no blood was lost in what is usually a very bloody operation A simple washing arrested all tendency to hæmorrhage In tonsillotomy, simply gargling the part or using the atomized spray is sufficient to prevent the loss of blood —*Jour de Médecine*, March, 1885

The Effects of Inhalations of Nitrite of Amyl on the Urine —Dr Guiseppe concludes, after making a number of experiments with Dr Sansoni at the Turin clinic, that the first inhalations of this drug increase strongly the acidity of the urine, and that the uric acid increases so much as to be deposited at the bottom of the vessel in the form of its characteristic crystals In a patient affected with transverse myelitis, where the urine was alkaline and rich in phosphates, he gave inhalations of nitrite of amyl every half hour, without producing any of the usual nervous and circulatory phenomena The urine became acid, the phosphates diminished, and the nauseating odor disappeared Moreover, Rosenthal and Dittel have used nitrite of amyl (six drops to a litre of water) for antiseptic washings Guiseppe does not explain exactly the action which he obtains, he recalls the fact that many of the ethers of nitrous acid tend to decomposition in forming the products of reduction of nitric acid —*Annales Medico-Chirurgicales*, March, 1885

MEDICINE

A New Test for Bile Acids in the Urine —Dr Oliver of Harrogate, has been demonstrating in several of the London hospitals what he believes to be a new test for the detection in the urine of the derivatives of the bile salts It is in the form of a test solution, and also in that of test paper The reaction of the test is founded on the physiological fact that where the bile mingles with the acid solution of peptones in the duodenum, the proteids are instantly and completely precipitated The test solution is an acidulous antiseptic solution of peptone, and does not present to the urine a constituent extraneous to the organism When brought into contact with a urine containing a bile-salt derivative, a precipitate resembling that of albumen when thrown down by nitric acid at once appears By using a standard of opacity to represent the very delicate reaction induced in normal urine, Dr Oliver showed how the quantity of the bile derivatives, as they appear in the marked deviations encountered in disease, can be readily gauged He has, we learn, found bile acids plentifully present not only in the urine of jaundice and of other hepatic affections, but in that of several cases of anæmia (simple or idiopathic, leucocythæmic or malarial), and of other morbid conditions, and his observations generally appear to be of some clinical interest We understand that Dr Oliver is preparing for early publication the data he has collected —*Lancet*, March 7, 1885

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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SINGLE COPIES 10 CENTS

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Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, MAY 2, 1885

ELECTROLYSIS IN INTESTINAL OCCLUSION

The paper on this subject read before the International Medical Congress, in 1884, by DR BOUDET, of Paris, is to be found in Nos 6 and 7 of *Le Progrès Médical*, for the current year The idea of using electricity for this purpose is not new, as the author of the paper in question states, a current from a static machine was employed in a case in England in 1797, and in 1826 Roy d' Etiolles brought up the question of using a galvanic current for the treatment of intestinal occlusion in the Académie de Médecine Still later Duchenne, of Boulogne, used the Faradic current with considerable success

The two great obstacles in the way of this method of treating intestinal occlusion have been to determine whether the galvanic or the Faradic current is preferable, and the difficulties of devising an instrument which would distribute an equable current throughout the affected portion of the intestinal canal This instrument Dr Boudet claims to have made, and he also claims that experimental physiology has shown that the galvanic current is the one to be preferred In constructing the instrument it was necessary to make one which would convey into the intestine a galvanic current of great intensity for a sufficient length of time, so as to store up a considerable amount of energy, and at the same time avoid local chemical action at the ends of the electrodes Theoretically this is avoided if the density of the current at the points of entrance and exit be equal to that throughout the whole circuit, this he claims to be fulfilled in the following-described instrument, which he calls a *rectal excitateur* It is composed of a large rubber sound, to be carried as far as possible into the rectum Into this tube is carried a metallic tube, the end of which does not reach to the end of the rubber tube (rather to the eye of the rubber tube, for it is made like a gum catheter), and to this metallic tube is attached a conducting wire, connected with one of the wires of the battery Then, by means of a second rubber tube, the metallic tube is connected with the canula of an ordinary irrigator, which is filled with salt water The salt water, in passing through the metallic tube and into the intestine, conducts the electric current to all portions of the intestinal mucous membrane with which it comes in contact The end of the metallic tube being protected by the rubber, the local chemical action is reduced to a minimum, and the theoretical conditions are fulfilled The second electrode, says Boudet, should be a large plate covered with chamois, and should be placed on the dorsal region The galvanic current applied in this manner causes a large and rapid secretion from the intestinal glands, a fact which may be of considerable moment in aiding the action of the electric current

It now remains to determine the quantity of electricity which should be used, though it is obviously impossible to give a uniform valuation for each case Boudet gives the minimum at 10 milliampères, and the maximum at 50 milliampères, the duration of the séance should be from five to twenty minutes By using a dorsal electrode of 400 square centimètres, and a litre (quart) of water saturated with sea salt for the rectal electrode, the resistance of the body to the passage of the current is about 500 ohms, so that the total energy varies between 1 5 and 150 kilogrammètres By using the deutoxide of manganese piles, made by Gaiffe, Boudet uses from 14 to 16 elements as a rule, the current being applied for a quarter of an hour This gives a mean intensity of 30 milliampères, and a total energy of 40 kilogrammètres

When the continuous current is used, it is sufficient in many cases, such as pseudo-strangulation and obstruction by masses of fæcal matter, to repeat the application *two or three times* if the first application be not successful, and, in these cases the direction of the current is a matter of little importance It is often the case, however, that the lower part of the large intestine has lost a great part or all of its sensibility, and in many cases the obstruction is due to this loss of rectal sensibility In these cases the negative pole, as more readily exciting sensibility, should be placed in relation with the rectal mucous membrane

Boudet reports that he has used this method in fifty-seven cases, with good results in all save sixteen, and some of these were of the most desperate character Eight other cases have been treated in this manner by other physicians in Paris, giving a total of sixty-five cases, with forty-nine successes The chief, and it may be said the only danger in this method is in case of weak heart Great care must be exercised in these cases, and the attendant should reverse the current every few minutes when it is found that the heart is very sensible to the action of the electric current It seems that this method is full of promise, there is no reason that the good results obtained by Boudet and his confrères should not be obtained by others in the treatment of intestinal obstruction

GENERAL GRANT'S CASE AND THE NEWSPAPERS

There is no more common observation than that men who insist on dabbling in those things of which they know nothing sometimes err This has been known to happen even to editors of daily newspapers, who are generally supposed by ignorant people to know everything, and from the *ex-cathedra* manner in which they give utterance to their (often absurd) opinions, one can but think that they are as fully impressed with their omniscience as is what may be called the "general public" A few weeks ago we took occasion to congratulate one of our lay contemporaries on having a sensible editorial article on a subject connected with public health But from the editorial opinions recently expressed in some of the public papers in connection with General Grant's case, we are forced to the conclusion that articles of real merit on scientific questions, and which display some degree of intelligence on the part of the writers, are inserted in the editorial columns only by accident

Nothing that has occurred since the death of President Garfield has called forth such an array of dense stupidity on the part of the newspapers, with calm assumption of a superior order of knowledge, as the case of General Grant When the names of the attending physicians were first announced the newspapers were eager to tell the public how eminent was each one of these gentlemen Then the vane in the editorial offices veered, and the physicians and the medical profession generally were severely criticised for saying that the affection of the throat was epitheliomatous, and for not venturing to name the hour at which the case would terminate in death Three weeks ago these same papers began to state that the bulletins issued by the physicians were "rose-colored," and with the bulletins were printed the statements of certain persons, who are old enough to know better, that the patient was being tortured by the hypodermic syringe in the hands of one physician, while another calmly wrote out bulletins to the effect that the patient was a little better, in short, that the physicians were deliberately "falsifying the returns" And now, since there has been a marked improvement in the case, these editorial oracles have manifested still other symptoms of senility and imbecility by asking whether "what is called the medical science" is an exact science, or only guesswork

Still further, with an assurance and impudence which would lead to the inference that they are employing the physicians and intend to pay all bills, these erudite editors now demand that the physicians shall explain matters at once, they will admit of no delay No one except a quack will claim that medical science is infallible, either in diagnosis, prognosis, or treatment Yet these same editors have complained bitterly that the army of quacks which has offered to *cure* General Grant, without a question of failure, has not been allowed to take charge of the case

Time after time during the progress of this case, and before the distinguished patient began to improve, the newspapers asserted, on the authority of irresponsible persons, that a speedy death was almost an absolute certainty When he began to improve the physicians were charged with having made these statements The physicians have been criticised by some of our contemporaries for having issued bulletins at all But it should be remembered that these bulletins were issued-at the request of the patient's family, and on account of the incessant demands of the press But the physicians were under no sort of obligation to give any information whatever to the newspapers The sensational cry that went up from many of the newspapers regarding the torturing of the patient with the hypodermic syringe was nothing more or less than silly, it is to this "torture" that the patient now owes his improvement in great part

The amount of misinformation, bad English, and what looks very like wilful perversion of facts that can be crowded into a dozen editorial lines, when the writer is handling a strange subject (and his encyclopædia happens to be in the other room), is absolutely appalling to an intelligent person Most people are glad to hide their ignorance, the average newspaper editor seems to take a special delight in exhibiting his—unless, perhaps, as is very likely the case, he is not sufficiently well informed to know that he is ignorant of some subjects We do not mean to say that the average editor is wilfully ignorant, he is simply wilfully misinformed as to matters which are no part of his business As regards the oracular utterances of these gentlemen as to what should be the treatment in certain cases, they are too silly for discussion

There is no reason to suppose that there has been an error in diagnosis in the case The microscopic slides which were examined a few weeks ago, and from which the diagnosis was partly confirmed, are still in existence, and we have no doubt that they would be placed at the temporary disposal of anyone who doubted the accuracy of the gentlemen who examined them If there was any reason, or anything else than the most inane silliness in these newspaper editorials, the medical journals would probably have nothing to say in regard to them Or if the writers had any pretensions to scientific knowledge in anything connected with medicine, there might be some excuse for the appearance of these puerile comments from them Not very long ago we heard a prominent newspaper man, an editorial writer on a widely known daily newspaper, say that a man had died within seven hours after being struck in the *stomach* by a base ball, and that he died of a *rapid form of typhoid fever* Such men may very properly be said, in many instances, to belong to the dangerous classes of society They are the men who are always ready to advise doctors in medicine, to tell clergymen how to preach, to instruct military men in warfare, and public men in diplomacy, and a careful reading of some of their learned paragraphs often leads one to think that the only heads in the office are those which appear at the tops of the columns

THE AFTER-TREATMENT OF SCARLET FEVER

MR GEORGE SMITH, of Somerset, England, in a short note on this subject in a recent number of the *Bristol Medico-Chirurgical Journal*, gives a plan of treatment of the desquamative stage of scarlet fever which has been quite successful in his hands, and which might be followed with good prophylactic results in every case It is well known that in this stage there is very great danger that the disease may be conveyed from a patient to a healthy person, even several hundred miles away

To obviate this danger, he has been in the habit for several years of having his patients sponged over the whole surface of the body twice daily The sponging is begun, as a rule, about a week after the appearance of the eruption, and is continued until the desquamative stage is completed The material with which the patient is sponged is a mixture of one ounce of oatmeal to one pint of boiling water, this solution should be made fresh each day, and used while tepid, or at such a temperature as may be comfortably borne by the back of the hand The gluten of the oatmeal sticks the scales of the skin to one another and to the surface of the body, which allows of their removal without the usual risk of infecting the atmosphere or clothing, thus greatly lessening the risks of spreading the disease The gluten also fills the cracks in the new skin and protects it from the cold, which diminishes the risk of the œdema which so frequently follows scarlatina

CHEMISTRY IN THE MEDICAL SCHOOLS

A recent number of the *British Medical Journal* contains an editorial in regard to the dropping of the study of chemistry from the course in the medical colleges, claiming that chemistry is not a branch of science, but a science in itself It says, with great truth, that of all the sciences, chemistry has the greatest application, and that while it is a science of itself, it has more intimate relations with all other sciences, including the fine and industrial arts, and the art and science of healing, than any other branch of knowledge, that while its relation to medicine is close, it is at the same time ill-defined, that while everyone will admit that the medical student must know some chemistry, few, if any (of those who appreciate its value), are satisfied with the manner in which it is taught in the medical schools Our contemporary justly holds that the attendance upon courses of chemistry during the first year in the medical college is a waste of valuable time, and a distraction from other important studies

But this question necessarily involves that of preliminary education and preliminary examinations There can be no doubt in the minds of careful thinkers that every school should be forced to require preliminary examinations before a student is permitted to matriculate as a student of medicine The *British Medical Journal* also justly argues that the study of physiology necessarily presupposes some knowledge of chemistry, and hence that the student is unprepared to grasp the full import of his physiological studies until he is familiar with chemistry, this is equally true as regards the study of materia medica It must be admitted that the knowledge of chemistry possessed by the average graduate is deplorably small—not to speak of other subjects, in a great many cases, and there is but little doubt that many very poor examinations in chemistry are allowed to pass because the student makes a fair average in other branches It has often been objected to preliminary examinations that many bright men who have had no opportunity for acquiring a general education would be kept out of the profession That may be true in some cases, but the number of those who would not shine so brightly, who would be kept out of the profession, would be far greater The fact that sane persons have been confined to lunatic asylums is no argument for the abolition of asylums

Our esteemed contemporary very wisely suggests that in place of the regular course in chemistry in the medical colleges, the time should be spent in practical instruction in physiological chemistry, toxicology, and materia medica, in which, as everyone must be aware, medical graduates, as a class, are sadly deficient We are pleased to see that the New York *Medical Journal* entirely agrees with the suggestions of the *British Medical Journal* The subject is worthy of the most careful consideration by medical educators everywhere It may be said by some of the schools that such suggestions could not be adopted by a few schools without detriment to themselves, that students would avoid those schools which require too much of them We can but hope that the day is not far distant when this argument against progress will be refuted by the facts The best schools in the country are now requiring preliminary examinations with good results, and the results are such as to show that the best schools can formulate their own requirements, with the certainty that the best men will patronize them

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY

Stated Meeting, April 20th, 1885

Vice-President C W Purdy, M D, in the Chair

Dr H Gradle read a paper entitled,

NERVOUS SYMPTOMS DUE TO OVERLOOKED ANOMALIES OF THE EYE AND EAR,

In which he referred to a classification of diseases according to their etiology, which he proposed at the last meeting of the Illinois State Medical Society in 1884

The paper now read contained reference to several cases which had come under the author's own observation The special interest of these cases lies in the fact that the local eye and ear symptoms were so insignificant that the primary trouble was either wholly overlooked, or were not supposed to have any connection with the more annoying nervous symptoms in other parts of the body

The only region of the eye, the irritation of which the author has known to cause disturbance in distant parts of the body, is the ciliary muscle The condition of undue strain to which this muscle is subjected in hypermetropia and astigmatism is perhaps a prominent etiological factor in these cases The most frequent symptom caused by eye strain is headache, which is always frontal or temporal, though in nervous subjects it may extend over the whole head, and even to the back of the neck In some cases the pain is constant, in others it occurs only after undue exertion of the eyes In very many cases moderate pain exists all the time, but it is increased by work It is usually described as a dull, aching pain This form of headache has often been permanently removed by the use of spectacles In some cases of astigmatism it is necessary to keep the ciliary muscle paralyzed by the application of atropia for a few days, in order to have the glasses fitted The reader could not corroborate the view that hemicrania is sometimes due to refractive anomalies, or rather to the eye-strain produced by them He has never seen migraine cured by glasses alone, though it is not to be doubted that the correction of the strain will facilitate the cure, or mitigate the migraine, at any rate Dizziness, with or without headache, is a common result of eye-strain, there is rarely, however, any danger of falling or reeling, and it is more commonly a dazed feeling, or a difficulty of concentrating both thought and sight upon the same object

Gastric disturbance sometimes occurs as a consequence of refractive difficulties, patients sometimes complain that an eye-strain of which they are conscious will produce a feeling of uneasiness in the region of the stomach The reader cited the case of a man, 33 years of age, for whom he had prescribed moderately strong concave cylinders in spectacle frames, on account of intense eye-strain, headache and dizziness When the patient was seen three years later he was well, so far as his eyes were concerned A few months ago, however, he had a new pair of glasses made, and since that time he has felt somewhat dazed at times, and frequently slightly nauseated, he had lost his appetite and rather loathed his food The new glasses were in eyeglass frames, and the direction of the axis was not proper or constant On the patient returning to the spectacle frames all symptoms of gastric disturbance disappeared

Aural lesions may also cause disturbance in distant parts of the body Dr Gradle has notes of fifteen cases in which treatment of ear trouble caused symptoms in other parts of the body to disappear One case was that of a young man in whom an eczema of the meatus caused a troublesome cough for some time, an application of a strong solution of nitrate of silver to the well denuded and scraped surface caused the cough to disappear entirely Another case was that of a child in which the removal of a plug of exfoliated epithelium from the external auditory meatus stopped regular attacks of spasmodic cough The most frequent reflex lesion caused by this disease of the ear (epithelial exfoliation) is headache, generally diffuse, and often very persistent This affection of the epithelium is always accompanied by some interference with the permeability of the Eustachian tube Two cases of neuralgia of the fifth nerve, on the affected side, leading to the detection of the ear trouble, were cited

While vertigo quite often accompanies any disease of the middle ear which increases the intra-labyrinthine pressure, the writer has never observed dizziness unless the patient was aware of the ear trouble, except in very young children He mentioned the case of clonic spasm of the eyelid produced by the presence of a bead in the ear, in a very young child, and also a case of spasmodic torticollis, resulting from irritation of the external meatus, in a child four years of age

Dr F E Waxham read a paper on

THE TREATMENT OF CROUP, AND INTUBATION OF THE LARYNX

After giving an exhaustive summary of the many remedies for the treatment of this affection, the reader said that to Dr J O'Dwyer, of New York, belongs the credit of originating this bold and ingenious device for treating croup Concerning this method he drew the following conclusions 1 With a little dexterity and practice it can be easily and quickly performed, and without danger, 2 The patient is not mutilated or disfigured, 3 There is no wound to cause shock, or to become the source of septic infection, 4 The tube can be worn much more easily than the ordinary tracheotomy canula, and coughing and expectoration are just as easy, 5 It does not require the close care of a tracheotomy, 6 The air that reaches the lungs is warmed by its contact with the upper air passages, and is not so likely to cause bronchitis or pneumonia, 7 Parents will consent to tubing much more readily than to tracheotomy

Dr F O Stockton stated that three years ago, while in Vienna, he began making experiments with the idea of devising something to replace or take the place of tracheotomy in the treatment of croup His first idea was to fasten in a male silver catheter, passed through the mouth, but he soon found that would not do, as it prevented the taking of food and was liable to inflict injury by the fine end coming in contact with external objects Then he cut off a piece of silver tubing and turned a flange on it, the flange to rest on the vocal cords, but that would not do, as it was soon coughed out, the tube being only an inch long Next he made a triangular tube the shape of the glottis when at forced inspiration This was retained better, but was finally coughed up also After that he made at ube of the same shape, with the addition of two spring flanges to spring out below the vocal coids, this was retained, but caused a good deal of inflammation, and could only be removed with difficulty, as the mucous membrane would swell in around the flanges

All his experiments were made without any knowledge of the experiments of Dr O'Dwyer "Honor to whom honor is due" Dr O'Dwyer has apparently successfully solved the problem, so that all honor is due him

On account of the resistant nature of the vocal cords, there is no danger of the tube being drawn into the trachea, again, the length of the tube is such that it reaches almost to the bifurcation of the trachea The tube is not liable to fill up with membrane, as it is gold-plated and cannot corrode, and the surface is perfectly smooth, so that it will not afford lodgement to foreign bodies that would plug the tube and cause it to be drawn into the trachea in inspiration

STATE MEDICINE.

THE ILLINOIS STATE BOARD OF HEALTH

At the regular quarterly meeting of the Illinois State Board of Health, held in Chicago on April 16 and 17, Dr John H Rauch stated in the

SECRFTARY'S REPORT

that fewer certificates entitling to practice in the state have been issued to physicians during the past quarter than during any corresponding period in the history of the board To graduates upon diplomas from medical colleges in good standing, 116, and two to others upon examination in branches omitted by their respective colleges, also two to non-graduates upon proof of over seventeen years' practice in the state There were twenty-two applications for certificates rejected through failure to comply with the requirements of the board—which is also less than the usual proportion of such cases.

MEDICAL EDUCATION

As it is during this quarter that the new graduates in medicine begin to appear, their applications have been watched with more than usual interest at this time, as affording some clew to the effect of the new schedule of requirements.

Although seventy-eight medical colleges out of the 116 in the United States claim to have exacted, at their last session, a preliminary education requirement as a condition of matriculation, the evidence afforded by the applications thus far received shows that in too many cases the standard of such education must be very low.

From the graduates of one college, which announces that a preliminary examination will be held in accordance with the rules of the state boards, five out of the seven applications received contain such intrinsic proof of defective preliminary education that they were presented to the board.

There is other evidence—some in the form of direct charges by rival schools, some by the students themselves—that the entrance examination is, in many cases, a mere form. Colleges which, on inquiry, claim to exact proof of general preliminary fitness and capacity for the study of medicine, evade the spirit and intent of the requirement in a variety of ways. In some instances it is announced that the examination is confined to applicants who intend to practise in the states in which such examination is made a test of the good standing of a college. In other cases the requirement is entirely omitted from the college announcement, but graduates intending to practise in the states just described are furnished special certificates, setting forth that they have undergone the preliminary examination demanded. Still another form of evasion consists in announcing that a preliminary examination is exacted, but coupling this announcement with a long list of equivalents which will be accepted in lieu of such examination, beginning with the diploma of graduation from a good literary and scientific college or high school, or a first-grade teacher's certificate (the only substitutes which the board accepts), and ending with a "special arrangement" whereby the certificate of a preceptor is accepted as sufficient evidence.

It is not to be inferred, however, that there has been no gain or improvement in the standard and methods of medical education since this schedule of minimum requirements was first published. On the contrary, probably all has been accomplished that could have been reasonably expected. But these illustrations will indicate the scope and methods of the antagonism aroused by a measure of improvement, the first effect of which results in diminished classes and loss of income—an antagonism natural enough, perhaps, in view of the largely commercial character of many institutions of medical education. They also serve to show the necessity for further earnest and continuous effort.

In this direction it is suggested that one of the tests of the good standing of a medical college, for the purposes of the medical practice act in this state, should be its honest and unequivocal statement, in annual announcement and elsewhere, of the requirements for admission to its lecture classes, and an honorable and impartial enforcement of such requirements.

To secure the recognition of its diplomas in this state—as in good standing—every college should distinctly announce that the conditions of admission to its classes are: 1, credible certificates of good moral character; 2, evidence of the possession of a good English education, including mathematics, English composition, and elementary physics, or natural philosophy—such evidence to be furnished, in the absence of a diploma or certificate of graduation from a good literary and scientific college or high school or a first-grade teacher's certificate by a thorough examination in the branches of such education. While this is the minimum as to preliminary education, which should be distinctly specified and impartially exacted, it does not preclude colleges from making other requirements as conditions of admission to their lecture classes.

The secretary also suggests that the affidavit now required by law as to the lawful possession of a diploma, may be properly modified so as to include the information necessary to aid the board in deciding whether such diploma was issued by a legally chartered medical institution in good standing, as the third section of the medical practice act requires it to be—such modification to consist, substantially, in striking out the words "said institution," with which the declaration ends in the affidavit now in use, and substituting therefor the words, *a legally chartered medical institution in good standing, as defined by the Illinois State Board of Health, in its schedule of requirements printed on the back hereof*. A footnote on the face of the affidavit should call the especial attention of the affiant to the import of this declaration.

The law specifically requires that applicants for certificates shall furnish this proof—proof not merely that their diplomas are from legally chartered medical institutions, but that they are from such institutions "in good standing." Obviously, the graduate of a given institution is a competent, if not the best, witness as to the qualifications exacted of him before he received his diploma. And since these qualifications go to the essence of the question as to the standing of the institution, it is submitted that the board should avail itself of this form of proof.

Acting upon these suggestions, the board subsequently during the meeting adopted the following resolutions:

CONCERNING MEDICAL EDUCATION

WHEREAS, Many medical colleges do publicly announce that an entrance examination of candidates for admission to their lecture courses will be exacted, and do honestly and impartially enforce such examination, while, on the other hand, a number of schools either avoid making such announcement or evade the practical enforcement of any requirement of general education preliminary to the study of medicine, and

WHEREAS, These conflicting practices result in lowering the standard of medical education by attracting to a certain class of schools students who are poorly prepared for the study of medicine Therefore, be it

Resolved, That, in order to secure the recognition of its diplomas as in good standing for the purposes of the Medical Practice Act in this state it is necessary that each college shall distinctly state in its annual announcement that the conditions of admission to its classes are 1 Credible certificates of good moral character 2 Diploma of graduation from a good literary and scientific college or high school, or a first-grade teacher's certificate Or, lacking this a thorough examination in the branches of a good English education, including mathematics, English composition, and elementary physics or natural philosophy

Resolved, That the secretary of the board be, and hereby is, instructed to furnish a copy of the foregoing preamble and resolutions to the dean or secretary of every medical college, and to the editors of medical journals, in the United States

On motion it was also

Resolved, That, since the publication of the names and addresses of matriculates is desirable for purposes of information, the secretary be authorized to request of all colleges desirous of being accounted in good standing in this state, that they publish in their successive annual announcements complete lists of the matriculates, as well as of the graduates, of each immediately preceding session

THE CHOLERA

In connection with the efforts made to secure information from the national authorities concerning the status of cholera abroad, attention is called in the report to the cable dispatches received by the newspapers during the meeting, announcing that the French, Italian, and Portuguese governments had ordered a quarantine of detention against Spanish vessels, and the appearance of the disease at Jaen, in the province of that name, in the south of Spain, and at Santiago de Compostela, in the extreme northeastern province of Coruna—the same dispatch saying that the panic in Spain over the spread of cholera is increasing, as reports continue to arrive showing that new points are being constantly attacked, that the government is taking energetic measures to isolate infected towns, and that a circular of warning has been sent by telegraph to the authorities of all the provinces, cautioning them against the admission of persons or goods from twelve specified towns, all of which are officially stated to be more or less infected

Simultaneously with this latter information the first official statement was made public by the secretary of state, who announced, on the 18th of April, the receipt of a dispatch from the United States consul-general at Madrid, saying "that he is informed by the director general of health that there is no cholera in Spain, and that the cases recently reported in the province of Valencia are not cholera" The Spanish government has instructed its ambassadors to protest against quarantine restrictions and a dispatch of the 19th inst, from Barcelona, also asserts that the disease is not Asiatic cholera, but cholera morbus or cholerine, due to local causes, the outbreak at Alcira, near Valencia, for example, being caused, it is claimed, by the failure of the regular water supply, in consequence of which "the people have been drinking from a canal which was tainted by paper mills that use suspicious rags"

In view of these contradictory statements, and in the absence of full and authentic information from the national health authorities, sanitarians are justified in regarding, for precautionary purposes, the disease now so widely spread through the littoral provinces of Spain as true Asiatic cholera, and in apprehending present danger of its introduction into this country through commercial intercourse with the Spanish possessions in the West Indies—Cuba, Porto Rico, etc—and less directly with those in South America

Attention is also called to the fact that the country is threatened with an influx, by emigration from Italy, of a people reduced to the verge of beggary and starvation by last year's cholera epidemic and its results The low rates of passage will tempt to violation of the law against overcrowding, with all the suffering and insanitary conditions which will thence result The poverty of the people and their modes and habits of life will add to the evil, and increased burdens and responsibilities will be thrown upon the authorities of every port at which these immigrants land, as well as upon the communities in which they may settle These considerations may make it necessary to begin the work of sanitary supervision of travel and quarantine along the state boundary lines earlier than would otherwise be necessary Already the first instalment of the Italian immigration has arrived in Chicago

The board adopted the following preamble and resolutions concerning these matters

CONCERNING INFORMATION OF FOREIGN EPIDEMIC DISEASES

WHEREAS Prompt, full and trustworthy information of the existence of epidemic diseases such as Asiatic cholera, yellow fever, and smallpox in the foreign ports in commercial relations with this country, is a matter of the first importance to the success of efforts for preventing their introduction or limiting their spread, and

WHEREAS It is understood that, under the authority conferred upon the President by Sec 1752 of the Revised Statutes of the United States consular officers and other foreign agents of the General Government are required to furnish such information Therefore be it

Resolved, That the Secretary of this BOARD be and he hereby is, instructed to respectfully request of the honorable the Secretary of State that he cause to be transmitted to the office of this BOARD at Springfield so much of such information as may be useful in guiding action for the protection of the people of this Commonwealth against Asiatic cholera, yellow fever, and smallpox

At the examination of candidates the following attained the required percentage Ad C Brendecke, Chicago, Jonathan E Clark, Effingham county, James D Craig, M D , Cook county

FOREIGN CORRESPONDENCE.

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

Dr Richardson's Address on the Sanitary Condition of the Homeless—Dr Bell's Paper on Dysmenorrhœa—The Physiological Action of Brucine and Bromo strychnine—The Anti-vaccination Demonstration at Leicester—Sickness among the British Troops in Egypt

At the last meeting of the members of the Association of Public Sanitary Inspectors, Dr B W Richardson delivered an interesting address on the Sanitary Condition of our Homeless and Nomadic Population Dr Richardson said the question forming the subject matter of his address was one on which information of an extended character would be exceedingly valuable He would divide the classes referred to into three As to the first, the pure vagrant, while those who formed this class, without any provision which would be called a home, were placed in the most precarious condition, and lived a comparatively short life, they were rather exempt than otherwise from many of the diseases which affected those who were luxurious, and those even who, without being luxurious, were what might be termed comfortable in their circumstances Epidemic or zymotic diseases, and diseases like consumption, were rare in this class, and although they might appear to be the best agents for disseminating contagion, yet, according to his observation, they did not seem to do so With regard to the second class—those who carried on an itinerant trade, and procured a van in which they lived and slept—the epidemic diseases were by no means uncommon Their children were often scrofulous, unhealthy, and feeble, while their adults were subject to consumption and other constitutional diseases, especially those affecting the chest They also suffered even more than the vagrant classes from the effects of intemperance As to the third class, the nomadic or gipsy, he could speak with considerable experience Gipsies were constitutionally a very healthy race, and as far as his observation went, they were more distinctly free from the fatal diseases of the community than any other class, so long as they followed their nomadic mode of life Rheumatism was their most common enemy in their outdoor life, but he had never heard of an epidemic of smallpox among them They were not intemperate, and many of them attained considerable longevity It would appear from what he had said, that as men began to aggregate in close localities without proper sanitation, they compared indifferently as regarded their health with their less fortunate brethren The president of the association, Mr Edward Chadwick, said he thoroughly agreed with Dr Richardson that for the most part disease was brought about by overcrowding This was especially the case at Dartmoor Prison, which at one time was very much overcrowded, as a consequence typhus fever broke out When the numbers were diminished typhus disappeared, giving place to phthisis With a still further decrease in the prisoners the disease lost its hold entirely Referring more particularly to the vagrant classes in Scotland, it was the opinion of everybody that epidemics were introduced there by the vagrants, who naturally enough were hindered from wandering about, but eventually it was found that the real cause of epidemics was the overcrowding of the common lodging houses Since the lodging houses had been subjected to proper inspection and thorough regulation, instead of being the first place for disease, they were rather the last

Dr Bell, of Glasgow, in a paper on dysmenorrhœa, has drawn the conclusion that it arises in conjunction with stenosis, but that the stenosis was not the sole cause, because the pain ceased when the flow became established Dysmenorrhœa might accompany a neuralgic condition of the uterine walls, and frequently did so It had been said to be due to spasm of the uterus, and had been compared to the spasm which produced asthma, and by way of argument it had been said that asthma was cured by a copious secretion of the mucous membrane, just as dysmenorrhœa was generally relieved when the menses flowed freely Dr Bell held that the very reverse was the case, for it was only when the spasm in asthma ceased somewhat that the mucous membrane was able to secrete mucus to any extent When the spasm was severe the nerve centres, which controlled the mucous secretion by reflex action, were paralyzed temporarily, and it was only when the irritating effect of the spasm subsided that they were able to act when the modified irritation which remained stimulated them to free action When a copious flow of mucus resulted, just as when a severe inflammation of the Schneiderian membrane occurred, no mucus was secreted, but when this subsided, the more intense irritant ceased to act so powerfully on the ganglionic centres when their activity was restored, and afterward stimulated by the moderate degree of irritation which the less congested condition of the mucous membrane conveyed through the afferent filaments The obstructive theory had many advocates, among whom were Dr Barnes and the late Marion Sims, but Dr Bell was unable to agree with them that fluid blood should be less able to escape without pain than the catarrhal discharge, which was copiously excreted in the inter-menstrual period

The physiological action of brucine and bromo-strychnine has been investigated by Dr Lauder Brunton with the following results brucine has a convulscent action like strychnine, but weaker in itself, and also lessened by diminution when brucine is taken into the stomach, 0 1 gramme injected into the abdomen of a rat caused emprosthotonic convulsion and death in three minutes, 0 1 gramme given to a rat in salt produced no symptoms In a rabbit it produced sudden death after some minutes Brucine and strychnine, like curara, kill by convulsions, but iodide of methyl-strychnine produces paralysis Bromo-strychnine somewhat resembles strychnine, its action being on the spinal cord, and not on the brain, as the effects continue even in the decapitated animal

Some ginger ale and lemonade were recently handed in to one of our well known public analysts, both samples being of a bright pink color Analysis showed this color to be caused by the admixture of rosaniline in quantity sufficient to dye a piece of white wool to a deep pink The dyeing of the walls of the stomach would not be of any very great moment, but when the manufacture of rosaniline is considered, and the great difficulty in removing the arsenic acid used, then the grave nature of the sophistication at once becomes evident

A great demonstration of anti-vaccinators took place at Leicester Some 30,000 persons assembled in the market place from all parts of the country, and a procession of over a mile in length, and with bands and banners, paraded the town At the open-air meeting which followed resolutions denunciatory of the Vaccination Acts were carried

The Duke of Westminster, accompanied by the Duchess, has laid the cornerstone of the new medical school to be erected in Caxton street, in connection with the Westminster Hospital The latest returns from Egypt of the number of sick among the British troops engaged there reflects great credit on the arrangements made by the director general of the army medical staff and his subordinate officers in Egypt It appears that the total number of British forces in the Delta, the Soudan, and at Suakim, exclusive of the Australians and Indians, is 24,754, and that only 965 are on the sick list The amount of sickness is, therefore, under 4 per cent, a most gratifying state of things G O M

DOMESTIC CORRESPONDENCE

NEW YORK LETTER

(FROM OUR OWN CORRESPONDENT)

Incontinence of Urine in Children—Pathological Specimens—New York State Medical Association Transactions—The Charity Organization Society—O Donovan Rossa s Assailant—A Conference of Health Officers—The Victims of the Roller-Skating Match—Hospital Legacies—The Binghamton State Asylum

At the last meeting of the New York County Medical Association, on April 20, Dr J Lewis Smith read an elaborate paper on incontinence of urine in children, which elicited quite a lively discussion The principal speaker in the latter was Dr Gouley, who, like Dr Detmold, the venerable ex-president of the Society, took exception to the expression "incontinence", claiming that the proper term for the condition was nocturnal enuresis, since in true incontinence there was a constant dribbling of urine both by day and night In speaking of the etiology of the affection, Dr Smith gave credit to Prof Roberts Bartholow for suggesting a psychical cause that would no doubt explain a considerable proportion of the cases This was, that the child, dreaming that it was in a convenient place for urinating, yielded to the inclination Dr Gouley showed, however, that Jean Louis Petit had first called attention to the matter, more than a hundred and fifty years ago This author divided children who wet the bed into three classes *First*, those who are too lazy to rise and urinate, *second*, those who slept so soundly that the sensation of desire, which precedes the act of micturition, was not sufficiently strong to awaken them, and, *third*, those who dreamed that they were urinating Dr Janeway called attention to the fact that some of the cases of nocturnal enuresis are in reality instances of latent epilepsy, in which urination took place during night attacks, and one of the cases referred to by Dr Gouley was of this character

After the close of the discussion, Dr Janeway exhibited some pathological specimens of rare interest The first was a dilatation and retention-cyst of the vermiform appendix, due to occlusion of its orifice The dilatation of the appendix, which was about three-quarters of an inch in diameter, did not extend throughout its length, the distal portion beyond the cyst being atrophied, rather than enlarged The cyst had not yet been opened, but Dr Janeway said he had no doubt that it would be found, like other similar cysts which he had now, to contain simply mucus, with white flakes of cast off epithelium floating in it This was the third case of the kind which had now come under his observation In the first, the cyst was as large as a fœtal head at term, constituting a tumor which must have given rise to no little difficulty in the way of diagnosis during life In the second case the cyst of the appendix vermiformis was about six inches long and of twice the diameter of the one now presented He then showed the uterus from the same patient, who had died of cerebellar abscess There was marked cystic degeneration of its lining mucous membrane, resulting from atresia of the cervical canal The last specimen exhibited was one of very extensive colloid cancer of the stomach involving all four of its coats and almost the entire area of the organ, from the pylorus to the cardiac orifice The disease occurred in a lady of fifty years of age, whose father had also died of cancer of the stomach It was two and a half years from the time when the first symptoms of the trouble were noticed to the fatal issue, and pain had been quite a constant characteristic Dr Janeway had washed out the stomach several times with benefit to the patient

During the evening the president, Dr C A Leale, made a congratulatory address on the publication of the first volume of the "Transactions of the New York State Medical Association," which had just been issued by the Appletons It contained, he said, more than fifty contributions from those who are daily working in the field of scientific medicine, and he felt convinced that a study of these essays and addresses would awaken in the members a pride at the resources of their Empire State, whose motto had ever been "Excelsior" In referring to the list of membership of the State Association, it was seen that before the close of the first annual gathering there were more than five hundred Fellows enrolled, representing nearly every county in the state An incorporated organization developing such vitality during the first year of its existence, demonstrated its necessity and the great power which it had for future usefulness It had been mockingly said that it would be impossible to edit the proceedings, but the Association not only found most excellent publishers, but also a most accurate and diligent editor, Dr Austin Flint, Jr, and the result was seen in the elegantly bound octavo volume, of more than six hundred and fifty pages, now before them The New York County Medical Association was the eldest of the now numerous children of the New York State Medical Association, and as such it heartily tendered its congratulations to the parent society on having been able in so brief a time to present to each of its Fellows a volume containing so many living thoughts of a living present

The annual meeting of the Charity Organization Society was held last week in Association Hall, and much interest was manifested in the proceedings The annual report showed that the names of 201 societies and churches are on record in the Society's books as having sent in the names of families or individuals who are objects of charity, and that 481,000 names of such families and persons are on file The active work of the organization is accomplished by district committees and visiting officers, who become thoroughly acquainted with the condition and wants of the poor in the various portions of the city where they reside The Society has nine districts under its charge, and employs 101 visitors In the past year 9,344 families, representing 32,000 persons, have applied for help, but of these only 5,169 could be assisted There were 327 requiring continuous help, and 208 were put in hospitals Relief was secured 1,468 times from churches, hospitals and individuals, and regular employment was obtained for 568 persons The society has 55,000 families registered Out of 1,152 begging cases, only 60 were found to be really needy Addresses were made on this occasion by the president, Dr S Oakley Vanderpoel, the Hon Abram S Hewitt, the Rev Arthur Brooks, the Rev F de Sola Mendes, and the Rev Edward Everett Hale, of Boston

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A conference of representatives of the health boards of New York, Brooklyn, Philadelphia, Baltimore, New Haven, and Boston was held at the Fifth Avenue Hotel on the 23d, to discuss quarantine matters generally and agree upon uniform regulations for the prevention of the introduction of cholera into the United States The matter of the admission of rags from foreign ports was taken up and fully discussed, and it was concluded to establish a close quarantine against them, allowing none to be landed until after having been thoroughly boiled or steamed by the superheated steam process The sulphurous-acid disinfection of rags was conceded to be ineffectual, and the conference decided against it The opinion was expressed that one principal reason why smallpox had been so rare of late in New York was on account of the stringent regulations requiring all old rags to be disinfected

The following is the verdict rendered by the coroner's jury in the case of the first victim of the six days' roller-skating match last month at the Madison Square Garden

"We find that Joseph Cohm came to his death on March 16 from meningitis, aggravated, if not induced, by prolonged excitement of body and mind, and also by exposure consequent upon his participation in a six-day roller-skating match, which took place at the Madison Square Garden from March 2 to March 7, inclusive We, the jury, recommend that a law be passed by the legislature prohibiting owners and managers of rinks from allowing any match or exhibition which will keep the contestants on the floor of the rink any time exceeding four hours in duration"

On the 10th of April William Donovan, the champion, who skated nearly eleven hundred miles during the six days match, died from pericarditis following an attack of pneumonia, which resulted from the exposure and exhaustion incident to the performance of his extraordinary feat

By the will of Mrs Eliza M Morgan, widow of the late ex-Gov E D Morgan, $135,000 is bequeathed to charitable purposes, of which the Woman's Hospital gets $20,000, and the Home for Consumptives $5,000

In accordance with recommendations of the Trustees of the Binghamton State Asylum for the Chronic Insane, the State Board of Charities and the State Commissioners of Lunacy have decided to provide tent accommodations for the temporary shelter of 200 patients for the coming season The measure was adopted in view of the crowded condition of the asylum and for the purpose of securing the best hygienic conditions to aid in no symptoms In a rabbit it produced sudden death after some minutes Brucine and strychnine, like curara, kill by convulsions, but iodide of methyl-strychnine produces paralysis Bromo-strychnine somewhat resembles strychnine, its action being on the spinal cord, and not on the brain, as the effects continue even in the decapitated animal

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On the 10th of April William Donovan, the champion, who skated nearly eleven hundred miles during the six days' match, died from pericarditis following an attack of pneumonia, which resulted from the exposure and exhaustion incident to the performance of his extraordinary feat

By the will of Mrs Eliza M Morgan, widow of the late ex Gov E D Morgan, $135,000 is bequeathed to charitable purposes, of which the Woman's Hospital gets $20,000, and the Home for Consumptives $5,000

In accordance with recommendations of the Trustees of the Binghamton State Asylum for the Chronic Insane, the State Board of Charities and the State Commissioners of Lunacy have decided to provide tent accommodations for the temporary shelter of 200 patients for the coming season The measure was adopted in view of the crowded condition of the asylum and for the purpose of securing the best hygienic conditions to aid in the treatment and care of certain classes of patients Tents will be erected on the asylum grounds according to the plan of a well appointed hospital camp, and the grounds will be pleasantly laid out and placed in the best sanitary condition The patients will thus have the advantages of abundant fresh air, sunlight, outdoor exercise, and interesting occupation P B P

MISCELLANEOUS.

Officers of the American Medical Association for the Ensuing Year —The Committee on Nominations made the following, on Wednesday, which were adopted

President—William Brodie, M D, of Michigan

1st Vice-President—Samuel Logan, M D, of Louisiana

2d Vice-President—A Y P Garnet, M D, of District of Columbia

3d Vice-President—Charles Alexander, M D, of Wisconsin

4th Vice-President—W F Peck M D, of Iowa

Permanent Secretary—W B Atkinson, M D, of Pennsylvania

Treasurer—R J Dunglison, Pennsylvania

Librarian—C H A Kleinschmidt, M D, of District of Columbia

Section of the Practice of Medicine—Chairman, J T Whitaker, M D, of Ohio, Secretary, B L Coleman, M D, of Kentucky

Section of Obstetrics and Diseases of Women and Children—Chairman, S C Gordon, M D, of Maine, Secretary, Dr Paine, of Texas

Section of Surgery and Anatomy—Chairman, N Senn, M D, of Wisconsin, Secretary, P H Mudd M D, of Missouri

Section of Ophthalmology, Pathology, Laryngology—Chairman, Eugene Smith, M D, of Michigan, Secretary, Dr Fulton, M D, of Minnesota

Section of Diseases of Children—Chairman, W D Haggard, M D, of Tennessee, Secretary, W B Lawrence, M D, of Arkansas

Secretary of Oral and Dental Surgery—Chairman, J H Marshall, M D, of Illinois, Secretary, A E Baldwin, M D, of Illinois

Section of State Medicine—Chairman, J H Rauch, M D, of Illinois, Secretary, F E Daniels, M D, of Texas

Judicial Council—R H Kinlock, of South Carolina, D D Saunders, of Tennessee, T G Richardson, of Louisiana, G A Ketchum, of Alabama, G Band, of West Virginia, J M Toner, District of Columbia, A M Pollock, of Pennsylvania

The place and time selected for holding the next meeting of the Association is St Louis, Mo, on the first Monday of May, 1886

Rag Disinfection in Boston —The Board of Health of Boston has decided that old rags shipped from Egypt to that port with a certificate of the United States inspector of rags that the rags were disinfected by the sulphur process, cannot be landed except for further disinfection

The Kansas State Board of Health —Governor Martin has thus far appointed the following physicians on the State Board of Health C H Guibor, of Beloit, Regular School, D Surber, of Perry, Eclectic, A P Forster, Homœopathic, these are for the long term of four years D W Stormont, M D, of Topeka, has been appointed for a two-years term, and H A Roberts, M D, of Manhattan, for a one-year term

Illegal Practitioners in California —The *Pacific Medical and Surgical Journal* states that the law regulating medical practice is a failure, because juries cannot be found who will convict, " even though they be the lowest Chinese charlatans "

The Missouri State Medical Association will hold its annual meeting in St Joseph, Mo, on May 12, 13, and 14

The American Neurological Association will hold its annual meeting in New York city on June 17, 18, and 19

A Cremation Society —There is a bill now before the Massachusetts legislature to incorporate the "New England Cremation Society "

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM APRIL 11, 1885 TO APRIL 24, 1885

Brown, Harvey E, Major and Surgeon, leave of absence extended two months (S O 83 A G O, April 11, 1885)

Robertson R L, First Lieutenant and Assistant Surgeon, granted leave of absence for one month (S O 43, Dp Tex, April 16, 1885)

McParlin, T A, Lieutenant-Colonel and Assistant Medical Purveyor, U S Army, sick leave extended three months on surgeon s certificate of disability (S O 88, A G O, April 17, 1885)

Lieutenant-Colonel Joseph R Smith, surgeon Major John S Billings, surgeon Major Henry McEldeny, surgeon, detailed to represent Medical Department of the Army at annual meeting of American Medical Association, to be held at New Orleans, La April 28, 1885 (S O 91 A G O, April 21, 1885)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEKS ENDING APRIL 18 AND 25, 1885

Battle K P Assistant Surgeon, when relieved to proceed to New Orleans La, for duty April 13, 1885

Yemans H W Assistant Surgeon, detailed as Medical Officer revenue steamer Corwin during cruise April 16, 1885

Brooks, S D, Assistant Surgeon, granted leave of absence for ten days April 16 1885

Sawtelle, H W, Surgeon, when relieved to proceed to Detroit Mich and assume charge of the service April 23, 1885

Urquhart, F M, Passed Assistant Surgeon, to assume charge of Cape Charles quarantine station April 23, 1885

Williams L L, Assistant Surgeon, when relieved to proceed to Norfolk, Va for temporary duty April 23, 1885

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

Vol IV | Chicago, May 9, 1885 | No 19

ORIGINAL ARTICLES.

THE ADDRESS IN MEDICINE

Delivered at the Meeting of the American Medical Association at New Orleans, April 28, 1885

BY HENRY D DIDAMA, M D,

OF SYRACUSE, N Y

Chairman of the Section of Practical Medicine Materia Medica and Physiology

The prescribed duty of the chairman of the Medical Section is to acquaint you with the progress made during the past year in materia medica and the practice of medicine A literal compliance with the mandate would subject you to a wearisome recital of facts and fancies which have been gathered already by enterprising medical journals, and scattered broadcast throughout the world The spirit of the injunction may be honored by the omission of minor and as yet unestablished additions to our armamentarium, while a few comments are made on the two recent discoveries which have not entirely escaped popular and professional attention comma bacillus and hydrochlorate of cocaine

The prompt and unprejudiced experiments made with the new local anæsthetic, the cordial, enthusiastic, and universal acknowledgment of its merits, are a sufficient refutation of the charge that the medical profession is hampered by a blind and dogged conservatism The drug is still in its infancy Its anæsthetic properties are so remarkable that its use has been limited mainly to surgery, and especially to operations on the eye But that it has a valuable future in medicine also, there can be no doubt Its power to produce contraction of congested blood vessels and pallor of the mucosa early suggested its probable utility in various pathological conditions Used as a collyrium in conjunctivitis, and in the form of spray in acute and chronic nasal and laryngeal catarrh, it has been of greatest service, not only as an adjuvant, but as the principal remedy Speakers and singers afflicted with sudden and even persistent hoarseness and aphonia, have found speedy relief and a restoration of vocal functions It is not improbable that, used with the atomizer, it may mitigate the severity of the paroxysms of pertussis, and alleviate the dreadful distress of tubercular laryngitis Internally—should its price not continue to forbid its general employment—it may be found serviceable in gastric irritation and catarrh, and, like the leaves from which it is extracted, it may prove to be a quick and powerful muscular invigorator

The brilliancy of the discovery of the comma bacillus by the already immortalized Koch, is universally admitted, but the claim that this microbe is the pathogenetic factor in cholera is stoutly denied by some eminent observers This denial is echoed by many worthy people who are constitutional doubters, and who habitually substitute prejudice for patient investigation

It is asserted on the one hand that the comma is not pathognomonic of Asiatic cholera, being found in the dejections of cholera morbus and even in healthy oral secretions, and on the other hand that in many cases of Asiatic cholera it is entirely absent, and that if it happens to be found its presence is a harmless coincidence So confident has been this scepticism that its devotees have actually indulged in cholera dejections, swarming with bacilli, as a beverage Surviving the somewhat repulsive experiment, the inference has been drawn that these microbes have no infectious properties

Klein and others have demonstrated that the tank water in various parts of India is fairly alive with these punctuating bacilli, and that the natives drink it and them with avidity and impunity The poor maligned comma microbe seems now in a fair way to have a reputation for innocence fully established His brother, the bacillus of tubercle, had a similar checkered experience Miliary tubercle, it was asserted, identical with that caused by the bacillus, could be produced by inhalations of glass dust, or by inoculations with any inert substances

One zealous doubter hastened to proclaim that the microbe was a base impostor, that what seemed to be a living organism was simply a masquerading fat crystal But more extended observations, and experiments which excluded former sources of error, have so established the morbific character of this microbe that the affirmation may be made with some assurance every tubercle comes from a bacillus In regard to the comma, Klein, in a recent discussion admits that while this bacillus in and of itself is harmless, it yet does excrete or produce a virus or poison which causes cholera, so that after all the comma is actually essential to the existence of cholera, and the formula is justified no comma bacillus, no cholera

Let it be admitted that the harm is done not by the living microbe, but by some dead excretion Still, as there can be no secretion without an excretor, the comma cannot be allowed thus to shirk responsibility The common law maxim, *qui facit per alium facit per se*, will hold the principal liable for all the legitimate actions of its representatives

It is admitted by Klein and his supporters that the poison produced by the bacilli is self-multiplying Then it must be alive, for a dead excretion has no power of propagation And if it be alive it must itself be a microbe, the vicious offspring of the amiable comma So that at last the contending parties occupy the same platform, one party laying the blame upon the mother microbe, the other party insisting that guilt rests on the wicked daughter

Too much admiration cannot be felt for the army of patient and zealous investigators who brave danger, who sacrifice ease, who spurn lucrative pursuits in their devoted hunt among uncanny objects for some new minute enemy of the human race They deserve all the plaudits which they receive But does not truth compel the sad confession that bacteriology, with all its brilliant discoveries, has furnished little help to what is of the greatest practical importance to physicians and patients the art of healing? The fatal march of consumption has not been arrested, and its treatment has not been even modified by the discovery of the bacillus The dreadful disease still continues to kill one-sixth of the human race, and its ravages would not cease even if the bacillus could be exterminated For consumption exists and runs its deadly course where no tubercles are present No new remedy has been suggested by the discovery of the cholera microbe It is known that this bacillus thrives in alkaline soils and has its growth and propagation hindered or arrested by acid conditions But the acid treatment of cholera was employed with some success more than a decade of years before it was known whether the cause of the disease was shaped like a comma or an interrogation point

Ague yielded to Jesuits' bark ages before the bacillus malariæ was dreamed of, and the knowledge that vegetable germs are the fountain and origin of the complaint has not added one jot to our ability to manage it These facts are admitted, but they do not detract from the merit of the germ seekers No practical—certainly no commensurate—good has come from Arctic explorations But Franklin and Kane and Greely and all their noble associates deserve honor and reward not for what they achieved, but for what they attempted Let the spirit of inquiry suffer no discouragement The ugly duckling becomes at length the beautiful and graceful swan The helpless and useless babe grows into vigorous manhood in time Through untold ages the sun has been sending to us line upon line ardently acknowledging our good mother earth as his beloved daughter The messages were unseen by dull mortal eyes till the Bavarian optician, Fraunhofer, came He discovered the affectionate hieroglyphics in the solar spectrum, but he could not decipher them He did what he could He patiently observed and measured and honestly recorded five hundred and seventy-six apparently meaningless lines And then he waited for the advent of some Champollion capable of furnishing an interpretation For forty-five years the epistle remained untranslated Then Kirchhoff, another German, after much patient search, revealed to us the kinship of things terrestrial and celestial

Some good, let us hope, will yet come from the cruel and murderous Arctic explorations In some way mycology may aid in preventing and curing disease Let us labor and wait But may we not, with all due humility and deference, suggest to our friends whose eyes are worn out looking through their fiftieth-inch objectives that the shape of the microbes, or even their behavior in cultivation fluids, is no longer of supreme importance? Is it not time that a little more attention be directed toward discoveries in prophylaxis and therapeutics? Already the antiseptic precautions introduced by Lister have been of incalculable benefit to surgery Those who decry Listerism, and claim that cleanliness is sufficient, actually pay tribute to the genius of the great antiseptic apostle Dirt is harmful only because it contains noxious germs, cleanliness, to the extent that it excludes these germs, is asepticism, and asepticism is Listerism

These remarks are introductory to my brief and fragmentary address The mycologist is inclined to claim that a legion of diseases arise from micro-organisms Included among them are the exanthems, typhus, typhoid, and yellow fevers, diphtheria and mumps, tuberculosis, venereal indiscretions and cholera asphyxia Included also are complaints like pneumonia, whose contagiousness is not generally admitted, and rheumatic and malarial fevers, which are non contagious It is not pretended that the specific *contagium vivum* of every one of these complaints has been demonstrated by propagation experiments But as the spirillum of anthrax, the micrococcus of diphtheria, the bacillus of phthisis and cholera have been captured and exhibited and caused to multiply, the inference—conjecture, if you choose—does not seem forced, that all diseases which resemble these specified, in having contagious properties, or a period of incubation, or a definite cycle, or capabilities of preventing subsequent attacks, have as their causes certain minute, even if undiscovered, organisms Further observations will be made Alleged discoveries will be subjected to rigorous investigation The false will be brushed away The truth will be established Carping criticism will yield to peaceful acquiescence

The neurologist is confident that a multitude of complaints have their origin in the nervous system. And he has good grounds for his opinion. "Fever as a Neurosis" is the subject of an able paper by an eminent writer at this very session of our Association. That a high temperature—the highest recorded—has resulted from injuries of the spinal cord—and where the influence of microzymes is excluded—is not a matter of question. In one instance the temperature reached 122° F., and remained for seven weeks between 108° and 118°. The patient was a lady, the result was recovery. An incidental inference, which I will not press, is that if recovery can take place after a continuous average temperature of 115° for nearly two months, it is not the fever which kills or produces rapid softening of the heart and other organs in fatal cases of typhoid. Whether there be special calorific nerves which may be stimulated in moderately severe spinal injuries to increased production of heat, or whether, from continuous compression of the nerves, heat is produced by increased resistance—as in the galvano cautery—are questions which may merit investigation. Fever, so far as it consists in elevation of temperature, can be a simple neurosis.

That rheumatism involves the nervous system, even if it does not originate in it, may be inferred from the erratic behavior of the joint affections in rheumatic fever, and from the causes of arthritis deformans, which are *often grief, care*, prolonged anxiety, and injury or disease of nervous centres, as shown by Charcot and ably presented by Ord at the last meeting of the British Medical Association. Many cutaneous affections, notably *zoster, urticaria, eczema*, are of nervous origin. Pneumonia sometimes arises from injury of the brain. Diabetes, both the glucose and the insipid varieties, can be produced, as is well known, by irritating certain nerve centres. Some kidney diseases and liver complaints are the result of persistent nervous disturbance.

The humoral pathologists still adhere to the belief that our physical ailments arise from disorders of the blood. Plethora has its numerous attending evils, congestions, hæmorrhages, cardiac disturbances. Anæmia is the prolific parent of a thousand aches and pains, of indigestions, palpitations, mental and physical debility. Blood containing an excess of a certain element causes diabetes, contaminated with another it occasions Bright's kidney and diseases of the urinary tract. Rheumatic fever, with endo- and peri carditis and permanent valvular disease, is produced by the ingestion or injection of a certain acid, and its absorption into the blood, as shown by the experiments of Richardson and Foster. This acid is produced normally from certain elements of the food. It is transformed before reaching the systemic circulation. Produced in excessive quantity, or failing to be transformed, it poisons the blood—as it does when introduced experimentally—and causes rheumatic joint affections and cardiac lesions. As is well known, these endocardial disturbances and valvular injuries are limited almost exclusively to the left heart. The right heart escapes because the acid is *normally present* there, and so an accustomed stimulant. The transformation is effected in the lungs. In failure of this transformation, the acid passes into the general circulation, and being an unaccustomed stimulant poisons the left heart and works its well known mischief.

Many dermatologists believe that certain cutaneous affections are caused by impure blood, eczema is one. The solidists pin their faith to cellular pathology. We need not be confused by this conflict of opinions. Neither of the views is exclusively true, neither is wholly false. Living foreign organisms, the nervous system, effete impurities of the blood, disorder of the minute cells of which every part of the human frame is constructed, each of these may be a factor in the origination of disease, each may be first or midway, or last in the vicious circle of causes—the etiological Round Robin.

Germs may develop a countless brood and contaminate the blood, either by their own abnormal presence or by a poison which they exude. This poisoned blood stimulates or obstructs the nervous system, and the heat of fever is developed by the correlation of forces. The presence of certain microbes is made known to the nervous centres. A mandate is sent to the vaso dilators of the lung, congestion and pneumonitis result. Some irritation at the origin of the vagus produces hyperæmia of the liver, over production of sugar, impairment of the transforming power, disturbance of the kidney, and diabetes. From disordered digestion an abnormal condition of the blood may result, the nervous system may become involved, gout may be a product, sometimes appearing in its true character as a torturing joint affliction, and sometimes masquerading as eczema or asthma.

The blood, the nerves, the cells, the microbes are thus seen to have a pathogenic partnership harmony and to be interdependent. Without the aid of the nervous system there could be no fever. But the nervous system alone can never originate any specific fever, typhoid or rheumatic, or pneumonia. Rheumatism is intimately associated with a poison in the blood, but the excessive production of the poison and its circulation in unwonted vessels are the result of abnormal nervous influence.

From the ovum to the cadaver man is constantly exposed to this conspiracy of morbific influences and agents to destroy him. There are foes without and foes within, foes which march up in front and boldly smite him in the face, foes which approach insidiously and undermine him, foes which are so attractive that he counts them as friends till he finds himself dangerously smitten under the fifth rib. The destructive influences and agents are in the air he breathes, and the formula is justified no comma bacillus, no cholera

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From the ovum to the cadaver man is constantly exposed to this conspiracy of morbific influences and agents to destroy him. There are foes without and foes within, foes which march up in front and boldly smite him in the face, foes which approach insidiously and undermine him, foes which are so attractive that he counts them as friends till he finds himself dangerously smitten under the fifth rib. The destructive influences and agents are in the air he breathes, the food he eats, the water he drinks, and a hundred fold more in the substitutes for water which he imbibes These foes are the accidents and sudden dangers which he encounters the misplaced switch of the railroad, the lurking miasm, the infected air, the defective drainage, the insufficient light, which sap the foundations of life They are the seductive habits and vices which sparkle and smile, and then bite like the serpent and sting like the adder These morbific foes find access to the citadel of life through sometimes one avenue and sometimes another This one comes in through the blood which it poisons, that one along the path of the nerves which it throws into abnormal vibrations, and the other creeps from cell to cell, corrupting and enfeebling every fibre and tissue Whatever the manner of entrance, the result is the same nerves and blood and cells all become at length involved in the mischief

To counteract these ruinous influences and agents—to fight with greater or less success against the open and concealed enemies—many means of defence and attack are provided There is wisdom gained by observation and experience There is the obtainable skill of the sanitarian and physician There are certain inherent powers of resistance and recovery which, ever on the alert, are more potent protectors than that human wisdom which often sleeps, than that human skill which sometimes gropes and sometimes blunders

We are familiar with what is called the *vis medicatrix naturæ* It is a power which is sufficient in many—perhaps most—cases of disease to effect a cure Sometimes it brings relief while the physician simply watches, or gives inert drugs—and claims all the credit Sometimes it corrects disorders with the well timed aid of the doctor Sometimes it triumphs over the combined attack of the disease and the blundering medicine man This reparative power is the best friend and ally of the wise physician It may be too weak to accomplish its purpose, and so may need timely and sufficient aid It may overdo the matter, and so need wholesome restraint It may be irregular in its action, and so need careful guidance

Now while we are familiar with this reparative power, we may not be so attentive to another conservative force which is especially important the resisting power From the *vis medicatrix* this power differs essentially One is a restorative force—a tendency to come back to the normal condition after departure from it The other is the conservative force, which *prevents* departure A steel spring yields readily to external force, but its elasticity—after the disturbing cause is removed—enables it to resume its original condition This is the *vis medicatrix* Granite rock is not easily affected by external violence Its power of resistance is great When the force brought to bear upon it is strong enough to cause it to yield, it goes to pieces, having no recuperative power There may be great toughness combined with great resisting power The iron-clad vessel when struck by ponderous ball or steel bolt, may be perforated, but it is not hopelessly shattered

This resisting power is akin to what is called inertia in physics—the tendency of a body in motion to keep going, of a body at rest to remain quiet forever Light bodies with little substance are easily set in motion, and easily deflected from their course, or arrested in it A feather can be wafted or stopped by the lightest breath A cannon ball, an avalanche, are turned aside by no obstacle, they move onward to their destination Every human being has more or less of this resisting power It may be feeble, and yet so united to a recuperative force that the individual possessor manages to get along fairly well Any trifling mishap or exposure may prostrate him, as a reed may be shaken in a moderate wind, but his elasticity, like that of the reed, brings him up promptly when the storm ceases He has his frequent ups and downs,—we all know many such cases,—he is delicate of constitution, he may be like an estimable old lady of my acquaintance, at the point of death at odd spells for thirty years, and yet he lives on by virtue of the *vis medicatrix*, of which he seems to be composed, till all his acquaintances have passed off the stage of action

On the other hand, this resisting power may be like that of the granite Its owner may violate all sanitary laws, may laugh to scorn all counsel about what he should eat or drink, or wherewithal he should be clothed He may expose himself unprotected to cold and wet He may go without sleep and food He may tax stomach and brain and muscle to the utmost And yet he may remain undisturbed We know such men,—men who guzzle poor whiskey every day, and live to be a hundred years old We know men of granite constitutions, who prowl around late at night, when they should be snugly in bed, who gormandize, who exercise vigorously all the vices, and yet who remain a standing refutation —as superficial observers think—of all rules for preserving good health But when some overwhelming calamity comes they are stricken down forever their first illness is their final one, they crumble to atoms

In every community there are those whose resisting power is so feeble from inheritance or so thoroughly impaired by excesses that they are but walking dead men—apples of Sodom, perhaps—fair to look upon, but ashes or putrefaction at the core They yield to influences which are trivial in their nature, and go into the hands of the undertaker before their neighbors had even heard of their illness There are children of old, or debauched, or scrofulous parents, whose resisting power is so nearly *nil* that their aspirations to stand with the angels receive early gratification, in spite of all that love and skill can do to keep them away from their heavenly home We name the messenger who summons them cholera infantum, or tuberculous brain disease, or white swelling, and as parents, while we wonder at the mystery, we bow submissively to Him who gives and then takes again so soon. But as physicians, we are not surprised that diseased and mushroom cells should hasten to early destruction.

No man liveth for himself alone. The good constitution, the strong resisting power of the temperate and upright man is not only a sure personal defence against diseases and a guaranty of longevity, it is transmitted to his offspring down to many generations. The dissolute man, broken down with diseases acquired while sowing his wild oats, suffers not alone. If he did, we might view the transaction with mitigated sorrow. He had his coarse enjoyment and he can afford to reap corruption. But the evil that he does lives after him in the blighted and wretched lives of his innocent offspring.

A priceless inheritance is a strong resisting, combined with a vigorous recuperative power. He who has it and preserves it and fortifies it, living a clean and active life, eschewing bodily and mental excesses, may bid defiance to disease in its multifarious forms. He need not be afraid for the pestilence that walketh in darkness, nor for the destruction that wasteth at noonday. Free from fear—the greatest depressant—he shall walk unscathed through all perils. A thousand may fall at his side and ten thousand at his right hand, but disaster shall not come nigh him. And even when the onslaught of disease cannot be wholly warded off, the wounds inflicted shall have speedy healing.

THE THERAPEUTICAL CONSIDERATIONS OF RESORCIN.[1]

BY ASA F. PATTEE, M. D.,

OF BOSTON, MASS.

Our constant experience with diseases of an infectious and pyretic nature, serves to strengthen our belief that these conditions are the offspring of living germs, and as this conviction dawns upon us, we are forced to acknowledge that through these minute organisms the animal and vegetable life are indissolubly connected. It is not the nature of the "microbe" to remain upon his native soil,—whatever that may be—but, using the air as a vehicle for his transportation, finds himself equally at home upon the foliage and fruit, and in the food we eat, as within the human organism. The animal and vegetable kingdoms alike furnish him a suitable nidus for his propagation.

At no period in the history of medicine has the spirit of investigation shown so much persistency and unanimity of effort as is now being carried on over the whole civilized globe. *Science*,—in its every department—is taking an interest in the phenomena of microscopic life, as connected with man's physical well being. With the discovery of the existence and nature of these germs, our list of remedies for pyretic and infectious diseases must necessarily be very much modified, and agents which possess antipyretic, and antiseptic (or anti-fermentative) action, will assume an importance which they have not hitherto possessed in therapeutics.

I desire to call your attention for a few moments to the consideration of a remedy belonging to the antiseptic class, one which, although by no means unknown to the medical profession, has not become invested with the interest which its therapeutical properties would seem to warrant. The article to which I refer is *Resorcin*. It is the chemical product of certain resins acted upon by potash, and is classed among the phenols.

For several years we have given carbolic acid the preeminence as an antiseptic in all external morbid conditions, from simple abrasion to putrefaction, and it has done its work well. But its usefulness must necessarily terminate with the external man, for its nature is such that as an internal remedy, it is not only exceedingly unpleasant to take, but, in quantities sufficient to procure any antiseptic effect, it is very harmful.

We have long been cognizant of the fact that a cause must exist for all the morbid changes in the human organism which we cannot fathom, and in our ministrations to the removal of the vitiated condition we have been compelled to treat the disease as it presents itself in its entirety. We see that certain organs and tissues are implicated and give this unnatural state which they are thrown into, a name accordingly, and the name becomes an entity, it is the magnet which must point to the remedies to be employed.

We are compelled to acknowledge the fallacy of this course every day of our lives. Take, for example, the conditions which go under the general term of "dyspepsia," in their numerous forms. Take also gastric ulcer, gastric catarrh, or cancer of the pylorus. What are these conditions? Our daily experience with these diseases shows them to be hydra-headed! We lop off one feature of the disease only to be confronted by its counterpart. We are thus made painfully conscious that the *cause* has not been reached, that we have been treating but the *effects*, and we are equally aware that circumstances compel us to do so, and that this so-called "circumstance" is but another name for ignorance! Speaking therapeutically, the internal and external physiological man may, in some respects, be considered in very much the same light, differing only in degree of sensibility.

An externally inflamed condition suggests its own treatment. For example. The first thing to be done in wounds and lacerations of the integument is to apply an antiseptic, and protect it from the bacteria of putrefaction, with which we know the air to be peopled, as all putrescent states are due to the presence of these organisms. Now the internal man we treat in this manner just so far as we can see him, and no farther! We recognize the feasibility of this method in all morbid states of the mucous membrane of the fauces and larynx, of the eye and ear, and in the various affections of the anus, urethra, and genitals These, by the aid of mechanical contrivance, are brought within the scope of our vision

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[1] Read in the Section on Practical Medicine, Materia Medica and Therapeutics, at the thirty-sixth annual meeting of the American Medical Association.

Now a condition of intestinal ferment, together with the alkaline state of the pancreatic juice, offers as desirable pabulum for the bacteria of putrefaction, which enter into the digestive tract with our food and drink But, unfortunately, we cannot see the poison which is vitiating the system, through the mucous membrane of the alimentary canal, by the absorption of undigested food which is going through the various stages of decomposition If the stomach be in the healthy performance of its functions, the bacteria which enter that organ with our food and drink will be destroyed by the gastric juice, hence the great importance attached to maintaining perfect digestion during the prevalence of epidemics The fact that the action of the intestinal contents remains alkaline from the duodenum to the rectum is, no doubt, the reason why cholera originates in the small intestine, the disease germ remaining inert until after it has passed the pylorus, and finds its greatest field for action in the iliac fossa

We know the absorptive powers of the mucous membrane which lines the alimentary canal, and if the food which it contains be sufficiently emulsified or broken down to permeate this surface, it is in this way carried into the general circulation and consequences more or less deleterious must follow, dependent upon the state of fermentative putrescence the substance has reached Although this is a truth familiar with us all, it does not receive the consideration which its importance demands, and this is because we cannot see it demonstrated before our eyes ! We see the results in various diseased conditions, but attribute them to some other cause, more or less remote, save in acute blood poisoning Infectious diseases illustrate the *modus operandi* of intestinal absorption, and we are cognizant of it We are also governed by this knowledge in our external manipulations We take into consideration the absorptive powers of the skin, although they are a hundred times less active than the epithelial covering of the intestinal tract The integument is made hard and firm and largely impervious by nature and our surroundings, still it may be made to absorb certain oils, charged with poisonous matter, sufficient to bring the system under its influence

The complete process of digestion has not yet been so perfectly unfolded to our understanding that we may not expect new revelations The bile performs a very important function in regard to the deleterious effects of intestinal ferments When nitrogenous food, like meat, etc , has lain in the stomach, unaffected by the gastric juice, it must, after passing the pylorus, be taken into the blood, and acute septicæmia would be a very common occurrence were it not for the positive antiseptic action of the bile, with which it is now mixed Indeed, were it not for the liver, the system would be liable to be poisoned at any time from the absorption of the products of natural digestion ! The existence of putrid meat, etc would not be absolutely necessary

The alkaloids which are formed during the progress of natural digestion would become absorbed, and passing on to some organ, or to the nervous system, bring about very serious results The antagonistic properties of the bile have never yet been thoroughly understood

I do not purpose to consume time in a lengthy analysis of the physiological anatomy of the liver, but wish merely to remind you of what you are already well aware, and that is the principal part of the venous blood which returns from the stomach and intestines must pass through the liver before it reaches the general circulation Now circumstances show that the products of putrefaction are detained in the liver and by the action of that organ are in a great measure chemically changed into harmless substances This has been repeatedly confirmed by the familiar illustration of the difference in the intensity and rapidity of action of poisonous drugs when taken into the alimentary canal by mouth, and when they are injected *per rectum* In swallowing the substance it passes into the portal circulation, and upon entering the liver, much of its force is lost When thrown up the rectum, the substance passes directly into the general circulation through the lower hæmorrhoidal veins, without passing through the liver, hence it meets with no chemical antagonist by which its poisonous properties may be wholly or partially destroyed

The consequences resulting from the absorption of the intestinal ferments are a variety of diseases, and profound depression of the nervous system We are quite familiar with the functional derangements of the heart in gastric indigestion through the reflex action of the nerve fibres which run from the stomach to the medulla oblongata, but direct organic alteration of the heart is produced when the poisons of intestinal ferments are carried to this organ

If the poison enter the cerebro-spinal nervous system it is capable of producing any of the conditions or diseases peculiar to this system The same is true of the kidneys Skin diseases, sores, and ulcers are the result of chronic septicæmia There can be no question but that this is the cause of a large majority of organic and strumous cachexia With this knowledge then, the course to be pursued is plain first, eliminate all putrescent substances from the alimentary canal by means of brisk cathartics, and then, proper antiseptic medication should follow

Of the many remedies which possess this property, few have any farther action than upon the matter with which they come in contact in the intestines They act, also, as an irritant upon the mucous membrane, or have a toxic effect upon the nervous system, as, for example, carbolic acid This cannot be used as an anti-fermentative, nor as an antipyretic, for the reason that the individual cannot tolerate a quantity sufficient to produce the desired effect Charcoal is powerless unless taken in large quantities Salicylic acid is almost insoluble, and iodoform is impracticable in many ways

We have in resorcin a remedy possessing all the qualifications necessary, and with no objectionable features

In the first place, but a very small quantity is required to be given A one per cent solution will prevent urine from changing for several days, and will arrest mould and decay

The pure white resublimated resorcin is the only kind that should be used It comes in the form of shining needles, has a sweetish taste, not altogether unlike benzoate of sodium, with a slightly bitter aftertaste It has no unpleasant accompanying symptoms, when introduced into the circulation in moderate doses My experience emboldens me to say, that of all anti-ferments or antipyretics this is preeminently the best Children and sensitive women will take this remedy unhesitatingly when they would refuse carbolic acid, salicylic acid, or quinine in solution

I have used it extensively in various forms of gastric disturbances, as in eructations of gas due to food lying in the stomach, and not acted upon by the gastric juice Also in pain and vomiting from the same cause, and in gastric dilatation In ulcer of the stomach it is a most efficient remedy, and agreeable to the patient The stomach may be washed out with a five per cent solution, or, if the patient emphatically objects to this unpleasant operation,—or other conditions do not favor the introduction of the tube—quite as good results may be accomplished by first cleansing the stomach and bowels with a saline cathartic, and then administering five grains of resorcin in an ounce of water every hour, until six doses have been taken

In catarrh of the stomach, and in the chronic gastric catarrh of drunkards, this is excellent, it breaks up the thick tenacious mass which coats the mucous membranes In chronic intestinal catarrh this cures by preventing the fermentation of food, if taken in doses of five grains to the ounce of water before meals Also in flatulence of the bowels from the same cause

It will prove a most satisfactory remedy in the abdominal pains and feverish condition of children resulting from improper food, and also in acute and chronic diarrhœa of children Its lack of irritant qualities, no less than its anti-fermentative properties, gives it a specific value It is equally serviceable in the diarrhœa of adult life For the same reason it will act favorably in hypochondriasis, and in the depression of spirits dependent upon liver derangements, and in the numerous forms of "stomach headache," including "sick headache," when of stomachic origin It is also valuable in gout, chronic rheumatism, and lumbago, which, there can be no doubt, are of fermentative origin

In all pyrexiæ, resorcin may be employed with benefit, but particularly in intermittent and relapsing fever It will quickly reduce the temperature, render the pulse slower and firmer, lessen the frequency of the respiration, and promote perspiration Under its effect the brain becomes clearer, the intense headache is lessened, and the tongue becomes soft and moist It kills the fibrilla of fever, whether of the intermittent or miliary type In typhoid fever this remedy is used more for the purpose of producing an aseptic condition of the intestinal canal, but in moderate doses it will keep the temperature within safe limits It is preferable to salicylic acid because it is less irritating, and has no depressing effect upon the heart It may be given both subcutaneously and by the stomach

In pelvic cellulitis, when the temperature is high, resorcin will be found beneficial, and will tend to promote a condition of quietude and sleep

It is valuable in all stages of pyæmia and septicæmia

The antiseptic action of resorcin upon the mucous membranes in chronic nasal catarrh, and in chronic bronchitis, is very happy It will relieve the cough of a common cold, produced by irritation and inflammation of the air passages, from a collection of mucus

In whooping cough it will at once arrest the paroxysms of coughing, if a fifty per cent solution is sprayed upon the larynx, and if this application is kept up every two hours, it will remove it altogether Whooping cough is undoubtedly of germ origin

The action of resorcin as a local application to the mucous membranes is by no means enhanced by using it strong enough to produce vesication I have found a fifty per cent solution to do much better in ulcerated sore throat than the crystals, and sometimes, where there is great tenderness of the parts, the substitution of glycerine in the place of water is still better

Resorcin is a very good remedy in acute tonsillitis, in eczema of the throat, and in catarrhal irritation of the fauces I know of nothing better to remove the mucus which coats the membrane of the throat in catarrhal conditions than a one per cent solution used as gargle And in diphtheria, as a local application to the diphtheritic membrane, and surrounding parts, it is valuable, the strength to be from fifty to seventy-five per cent in glycerine This is the most eligible application, and should be repeated every hour, at the same time let the patient take gr xxx–lx during the twenty-four hours

In varicose ulcers this may be used with the glycerine plasma—one to eight Carbuncles and boils may also be treated in this manner

I have had good success in treating bubo with this remedy, by injecting a five per cent solution into the abscess, and applying the plasma externally Chancroids heal more readily under the action of resorcin than any other remedy that I have ever used

In ulcers of the cervix uteri, and in chronic endometritis, and in uterine catarrh, a fifty per cent solution should be applied to the mucous lining of the uterine cavity on the cotton-wrapped probe It is quite as useful in acute vaginitis, and in gonorrhœa, and inflammation of the urethra in both sexes Pressed up into the vagina, in the plasma form, it will quickly arrest severe vaginal leucorrhœa or gonorrhœal discharge

In obstetrical cases the puerperal symptoms can be arrested by the internal and local use of resorcin Introduced into the vagina after parturition, its antiseptic action upon the lochial discharge renders it harmless if absorbed into the system

In hæmorrhoids and fistula, and in abscess of the rectum, it is very useful The abscess and internal hæmorrhoids may be treated with resorcin in the suppository form, a manner thoroughly appreciated by all who have had much experience with daily local applications

In some forms of skin disease, I have found it quite beneficial, especially in those which have much redness and burning as their characteristic symptoms, as acne rosacea and some forms of eczema It may be used as a lotion, made up of five parts of resorcin to two parts each of glycerine and water I have succeeded with this preparation after arsenic, sulphur, and all the other well known remedies had failed

Resorcin may sometimes be used upon the skin more advantageously in an ointment made up with vaseline, or simple cerate, thirty grains to the ounce In making this ointment it is very important that a little water be added to the resorcin so that it may be broken down into a plastic mass, forming a soft, unctuous compound This will be found a nice thing for burns, cuts, and bruises, where suppuration is threatened or has already appeared

It is also useful in inflammation of the eye and ear

I have tried resorcin in all conditions requiring a remedy of its nature, and have not yet been disappointed in its action Care should be taken to secure the pure article, and judgment exercised as to the proper strength it should be used—all conditions not requiring the same—and also the manner in which it should be administered or applied

As regards its *internal* action, I know of no remedy, possessing its active properties, so devoid of all irritating qualities Even in large doses it may produce toxic, but still not dangerous effects

Externally it may not be considered by some as in any way superior to carbolic acid, but on comparing the two we will find its superiority lies in the fact that it will not cauterize to the extent of carbolic acid, nor produce any of the dangerous systemic effects which local applications of carbolic acid are always liable to produce, in more or less degree, when persistently or extensively used It is also devoid of the offensive smell which characterizes both carbolic acid and iodoform, which fill the atmosphere with an odor which renders the unfortunate bearer an object of suspicion to be scented afar off

Taking all these things into consideration, I believe that we have in resorcin an antiseptic superior to any yet known

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

Dissociation of the Auricular and Ventricular Movements of the Heart — Professor A Chauveau reports in the *Revue de Médecine* a case so unique and striking that we at once present a brief account of it to our readers It was that of a man, a patient in the service of Professor Boudet, who had a radial pulse of only twenty-one to twenty-four beats per minute Upon auscultation, and by means of sphygmographic tracings, it was found that, while the ventricles beat only twenty-one to twenty-four times per minute, the auricles pulsated sixty-six times These auricular pulsations were tolerably regular, but were perfectly independent of the ventricular rhythm, being sometimes pre-systolic, sometimes post-systolic

Professor Chauveau adds the results of his investigations as to the pathogeny of this condition By cutting one of the pneumogastric nerves in a horse, he obtained some dissociation in auricular and ventricular movements But by slightly stimulating by a galvanic current the left vagus, he obtained a sphygmographic tracing of dissociated rhythm which almost completely resembled that obtained from his patient The inference is that a slight irritation of the vagus is a cause of the dissociated movements The case throws light, therefore, upon the pathology of dissociated rhythm of other types than the unique one here described —*The Medical Record*, April 4, 1885

Innervation of the Larynx — Prof Sigmund Exner, in his work, *Die Innervation des Kehlkopfes* (Vienna, 1884), announces the discovery of a third laryngeal nerve (nervus laryngeus medius) This nerve is derived from the pharyngeal and laryngeal plexus formed by the pharyngeal branch of the vagus with other nerves, and enters the crico-thyroid muscle, which is also supplied by the external branch of the superior laryngeal nerve The interarytænoid muscle is supplied by both upper and both lower pharyngeal nerves, and generally each muscle is enervated by several nerves The above conclusions are deduced from three lines of research 1, irritation of nerves in living animals , 2, degeneration of nerves after section in living animals , 3, examination of the larynx in children (*post-mortem*) —*British Medical Journal*, March 14, 1885

Twenty-three Tæniæ Expelled from a Patient in One Day —A Laveran, in referring to the mistake of relying upon the term tænia solium as meaning a solitary parasite gives the case of an army officer who had been on duty at a post where the water was provided from two cisterns, one of which was near some privies and also a waste pipe for dirty water Two of his comrades had passed tæniæ As he gave all the symptoms of the presence of tæniæ, he was treated with the ethereal oil of the male fern, which resulted in the passage of twenty-three tæniæ Twenty-two of these tæniæ were perfect with their heads, the twenty-third either came away without the head or it was lost in the discharges Each tænia was 2 m 30 in length, they were the tæniæ inermis, and no hooklets were found —*Archives de Médecine et de Pharmacie Militaires*, March 1, 1885

MATERIA MEDICA AND THERAPEUTICS

Balsam of Peru Combined with Various Metallic Oxides as an Adhesive Dressing for Many Lesions of the Skin —Dr George Henry Fox made some remarks on this subject at the meeting of the New York Dermatological Society on March 24

He said that he had lately been experimenting with certain applications for the purpose of obtaining a new form of adhesive dressing The one that he had used chiefly was a preparation containing one part of precipitated oxide of zinc to three of balsam of Peru, which he had found the least stimulating of all the balsams It formed a very soft ointment, was readily applied to the skin, and easily hardened, thus completely protecting the parts Ether and chloroform were added to some of the preparations, but they were too stimulating, as was balsam of fir, although Dr Jackson informed him that in one case under his observation the latter balsam was milder He (Dr Fox) has applied this preparation over moist and exuding surfaces, even in children, without producing any more pain than an ordinary ointment The objection to the use of an ointment was that it became dry, and was then friable He had tried adding oil to the preparation, but found that it was too liquid When the parts become dry and there is a tendency to fissuring, the surface could be made smoother and the cracks filled up by applications of oil He had obtained the most gratifying results from the use of these preparations The various metallic oxides, such as zinc, bismuth, magnesia, etc , could be employed in combination with the balsam of Peru He had prescribed the balsam and oxide of zinc separately, and had them mixed afterward The effect of these preparations was to relieve the congestion of the skin, and it was accomplished more quickly than by the application of the ordinary oxide of zinc ointment —*Journal of Cutan and Vener Diseases*, May, 1885

Baths of Permanganate of Potassium —Dr Hüllmann, of Halle, first used this remedy in 1879, for a two-year-old child that was suffering with a scrofulous eruption—eczema and impetigo After other means had been tried without benefit, he ordered a full bath of permanganate of potassium solution, so strong that the color of the water was between a dark rose and a violet The child was kept in the bath until the water began to take on a brownish tint After two weeks of this treatment the eruption entirely disappeared, leaving a slight yellow color to the skin, which disappeared in a few days Since then Dr Hullmann has used it with success in the so-called scrofulous exanthemata, in prurigo and eczema, in intertrigo, and during the desquamative period of measles, scarlet fever, and varicella—with the latter, as a preventive against infection He found it of most benefit when used after free washing and the use of the brush to remove all scales, scabs, and other accumulations The proportion of the solution required is about grs xv to Qx It is put into hot water, which is then allowed to cool in the bath tub —*Archiv fur Kinderheilkunde*, B VI, Hft 3

MEDICINE

The Semiological Value of Nephrozymase in Renal Affections —Dr E Baltus has demonstrated experimentally, with M A Béchamp, that nephrozymase is formed in the kidney itself and that its proportion in the urine decreases after reaching the bladder This name is given to a substance which was first isolated in 1865 by M A Béchamp, as an albuminoid substance which possessed the general properties of soluble ferments, capable of liquefying and saccharifying the starch of vegetable matters Its presence must relatively be considered as of importance as it exists in the proportion of 0 gr 60 in the healthy man and 0 gr 33 in the woman, that is, in the extractive principles of the urine To separate this nephrozymase, the urine is carefully filtered with three volumes of alcohol, the precipitate settles gradually for several hours—sometimes 24 hours are necessary The supernatant liquor is decanted in great part, and the precipitate is collected on a filter It is then washed with alcohol at 75° C until it will no longer dissolve The resulting precipitate, when mixed with a little water, will liquefy and saccharify vegetable starch in a few hours To separate all the mineral matter, it is necessary to repeat the manipulations several times and to increase the alcoholic precipitate by a very small quantity of acetate of soda

From a physiological point of view, it is interesting to find the kidney, which has been generally considered to be only a simple filter, furnishing a veritable product of secretion, that is to say a really new substance, not preexisting in the blood, and of which its constancy is an undeniable proof of glandular activity This constitutes a fact in nature which diminishes the radical difference, supposed to have been established, between the organs of secretion and of excretion properly so called

From a clinical point of view, the observations so far made allow us to attribute to nephrozymase considerable semiological importance, particularly with reference to the anatomical condition of the kidneys in their primitive and secondary affections This question deserves special attention from practitioners Examination of those pathological conditions where the excessive augmentation or suppression of this substance has taken place is very convincing

The author gives three cases of diabetes mellitus, one case of renal congestion connected with the retrocession of a cutaneous affection, and one case of œdema of the lower extremities with arterial insufficiency, in all of which the nephrozymase was *increased*, caused by what he calls zymasuria These cases were all characterized not only by the presence of a quantity of nephrozymase much greater than normal, but also by a total absence of all albuminoid matter recognizable by the ordinary reagents, such as heat nitric acid, and the various salts It would seem to result from these observations that this particular condition of the urine is associated with renal hyperæmia as much as well defined symptoms of profound lesions of the glandular organ It is precisely to the concomitant absence of these lesions that is due the frequent transitory character of zymasuria, and the relatively benign prognosis, as far as the renal condition is concerned None of the diabetic cases which furnished the precipitate suffered from any parenchymatous or other nephritis The same can be said of the remaining two cases When the lesion advances beyond the stage of hyperæmia, taking on an inflammatory type, disorganizing the glandular epithelium, and thereby annihilating the organ of secretion, the scene changes and the urine shows a notable diminution or total absence of nephrozymase

As examples of the absence of nephrozymase, the author gives a case of confirmed Bright's disease, one of albuminuria *a frigore*, with probable parenchymatous nephritis, a case of lead poisoning, and a case of paludism, in which there was a diagnosis of concomitant nephritis

Dr Baltus considers that these facts are sufficient to justify him in concluding

1 That zymasuria is generally the result of a congested condition of the kidneys, primary or secondary, but without any notable alteration of the glandular epithelium

2 That the total disappearance of nephrozymase indicates a profound disorganization of the secreting epithelium, and belongs consequently to the advanced stages of Bright's disease —*Jour de Sciences Médicales de Lille*, March 20, 1885

PSORIASIS TREATED WITH SALICYLIC ACID AND CASTOR OIL —At the meeting of the New York Dermatological Society, on March 24, DR GEORGE HENRY FOX showed two cases in connection with this subject The first patient, a girl 8 years old, who has a psoriasis covering all the body The patient's father and sister also have psoriasis When she was admitted to the hospital, a two per cent solution of salicylic acid in castor oil was applied to the right arm, a weak solution being used because of the great congestion of the skin The scaling is less, and many of the patches have disappeared, although the disease is extending in other directions To the left arm the mixture of oxide of zinc and balsam of Peru has been applied, and there is even less congestion in this situation

In the second case, the lower extremities are chiefly affected This patient is peculiarly susceptible to action of ammoniated mercurial ointment, even a very small quantity exciting the severe dermatitis Chrysarobin pigment has been applied to the right leg, and a five per cent solution of salicylic acid to the left leg, producing a marked improvement in the condition of the eruption in the latter situation

Dr Morrow said that he had for a long time used a two to four per cent solution of salicylic acid in cosmoline in pityriasis, in scaly eczema, and for removing the scales of psoriasis, preliminary to a more active treatment He was glad to know that castor oil proved so admirable a solvent In many cases he believed that psoriasis would improve under an indifferent treatment In some cases he had treated one side of the body with linseed oil, and the other with pyrogallic or chrysophanic acids, without any marked difference in the relative rate of improvement of either side Of late, he had found that chrysarobin did not produce the irritative effects that he had formerly observed from its use

Dr Piffard found that ten per cent of salicylic acid would not dissolve in oil, unless oil of lavender were used He used oil of lavender and oil of eucalyptus, each half an ounce, and castor oil an ounce, as a solvent Salicylic acid dissolved in liquor gutta percha possessed an advantage over a collodion solution, because in the former the salicylic acid rises to the top and can easily be shaken up, while in the latter it sinks to the bottom

Dr Fox said that there was an advantage in using the preparation made with the oil, because it was not irritating He was pleased to hear the suggestions made by Drs Morrow and Piffard, and remarked that ordinary oils do not dissolve salicylic acid so readily as castor oil —*Journal Cutan and Vener Diseases*, May, 1885

THE THERMOMETRY OF THE EAR —DR BOYDAN FLITNER (*St Petersburg Inaugural Dissertation*, 1882, *London Medical Record*, August 15, 1884), has made 100 measurements of the temperature in the meatus in healthy subjects, and 114 in the patients suffering from various acute and chronic affections of the ear The measurements were taken by means of a special thermometer invented by Dr R R Wreden, a description of which is to be found in the *St Petersburg medic Zeitschr*, November, 1879 It is made by Mr Reinhardt, of St Petersburg

The author found that the average temperature in the meatus in healthy persons was 36 8° C, the averages for the axillæ and rectum being at the same time equal to 37 5° C and 37 8° C The results of the measurements in the cases of ear disease (otitis media purulenta, otitis media catarrhalis, myringitis, otitis externa and otitis interna), are given as follows 1 The difference between local and general temperature, which under normal conditions, is equal to 1 0° C, oscillates in all acute ear affections between 0 3° C and 0 5° C That is, in cases of inflammation of the ear this difference is diminished more than half a degree (C) comparatively with the standard 2 In cases of inflammatory processes in the middle and external ear, the temperature of the diseased ear rises above the normal in acute forms from 1 0° to 1 2° C, and in chronic 0 3° to 0 5° C 3 In inflammations of the internal ear the temperature of the diseased organ rises in acute cases 2 0° C, and in chronic 0 7° C 4 In acute inflammations of the middle and external ear, the rectal temperature rises 0 4° to 0 7° C, in those of the internal ear, 1 6° C 5 In chronic ear inflammations, the rectal temperature remains at the standard, or even falls below it 6 In acute ear diseases, the temperature of the healthy ear rises from 0 6° to 1 1° C, above the standard, and in chronic, from 0 2° to 0 4°C 7 In affections of the internal ear the difference between the temperature of the diseased organ and that of the intact is less (being only 0 2° C) than in affections of the external and middle ear (where it is equal to 0 3° to 0 4° C) The general conclusions as summarized by Dr Flitner are these

1 Daily measurements of the temperature in the course of inflammations of the ear show that the temperature of the latter stands in a constant regular connection with the general temperature of the body Therefore, in ear affections, the local measurements not only may be substituted for, but even must be preferred to, measurements of the temperature in the rectum and axillæ

2 The same may be asserted in regard to ear affections complicated with pneumonia, erysipelas, and other diseases

3 In cases of ear affections complicated with morbid processes in the cranial cavity, or even on the surface of the skull (caries, phlebitis of the sinuses, erysipelas), the temperature in the meatus sometimes stands higher than in the rectum Hence, the measurements in the ear canal give us a clearer indication as to the course of morbid process in the head than the rectal measurements, and are preferable to the latter beyond any comparison —*Glasgow Medical Journal*, March, 1885

SURGERY

HERNIA OF THE STOMACH INTO THE SCROTUM —DR S VOGT gives the case of a man 60 years of age, with a scrotal hernia of the size of an adult head, who died in collapse with symptoms of local peritonitis, but without symptoms of strangulation The autopsy showed, among other things, as a part of the contents of the hernia, the pyloric end of the stomach enormously dilated, the epiplon, the cœcum with the vermiform appendage, the ascending colon, the transverse colon, and the commencement of the descending colon The stomach had an hourglass dilation corresponding to the hernial ring, the lesser curvature a little distorted above, was slightly elongated, while the greater curvature and the body of the organ were outside the ring The extraordinary dilation of the stomach had completely changed the relations of the organs in the abdominal cavity, so that the small intestines were carried to the left and below, into the pelvis, and the liver had been drawn from the right side toward the median line —*La Presse Médicale Belg* March 1, 1885

THE TREATMENT OF FRACTURES BY LAMINATED ZINC APPARATUS —DR MAURICE POLLOSSON has been using, for some time past, in the treatment of fractures of the leg and thigh, an apparatus made of laminated zinc, having seen it applied in the Parisian hospitals by M Raoult-Deslongchamps, the inventor In constructing the apparatus for fractures of the leg, he cuts out of a sheet of zinc, by a paper pattern, a metallic plate intended to be curved in of a gutter shape, and adapted to the posterior surface of the fractured limb The foot is supported by a sole, which is made by the curving in of the two sides of the plate, these two sides are fixed by iron wire passed through three holes pierced in the zinc and corresponding to the superimposed portions The heel is received in an opening A second plate of zinc, rectangular in form, and about 30 cm long by 25 cm broad, is then cut so as to be applied to the anterior surface of the limb Besides the large and small plates of zinc, there should be three solid lacets of braided tape, and provided at one end with a strap buckle, two bands of webbing, and wadding for lining the interior of the plates The laminated zinc can be obtained of any worker in such material, and the whole apparatus costs but very little

Its application is made by lining the posterior splint with two layers of wadding where it covers the tendo Achillis, one layer in the part corresponding to the popliteal space, and one layer covering the whole of the interior of the splint The splint is slipped under the fractured limb, reduction is then made with the sole of the foot placed against the sole of the apparatus, the limb being fixed provisionally in position with the aid of two lacets which compress the leg portion of the splint The two bandages of webbing are then applied, one fixes the foot by a figure-of-eight crossed over the instep, the other is applied circularly about the knee and inferior portion of the thigh To prevent the latter bandage from slipping up, the upper extremity of the zinc plate has digitations cut into it which are curved in to catch the bandage This being done, the provisional lacets are removed and the second plate is placed on the anterior surface of the limb, which, when curved in, embraces the first plate in its concavity The three lacets are then bound around it, one in the middle, the others at either end The ultimate treatment consists in tightening the lacets frequently, which should always be drawn to their maximum, and in reapplying the bandages if they become relaxed

From the time of its application the patient can rest the limb on a chair or sofa, without being obliged to assume a fixed position The anterior splint can be removed, if necessary, from time to time to examine the parts If there be much displacement, little cushions of wadding can be placed upon the posterior splint, so as to press upon the prominence of fragments in a gentle and constant manner, which is quite supportable and very efficacious In complicated fractures the antiseptic dressings are placed under the anterior splint, and the posterior splint can be hollowed or sloped out at the level of the wound when it is necessary Dr François Léon Pellerin has published a thesis on this subject ("Thèse de Lyon," 1885) —*Lyon Médical*, March 15, 1885

Local Extension in the Treatment of Fractures —In an article on this subject, in the *Medical Record*, of April 18, Dr Charles F Stillman says In local extension, only the parts about the seat of fracture are stretched, while in extension, as usually practised by means of a weight and pulley, or the long extension splint, the stretching is not limited to the affected part of the limb alone, but involves the entire limb

It would seem, theoretically, if thorough extension of the part could be produced by means of traction force, directed so as to produce stretching of the injured part alone, that the fracture would be placed in the best condition for prompt repair with a minimum of deformity, and in reality, this is true, because, when properly adjusted, such a dressing not only insures better fixation of the fractured bones during the period of repair, but at the same time the traction can be regulated day by day without the necessity of removal of the splints from the limb, and, in compound or comminuted fractures, the parts can be dressed and local treatment pursued without disturbance of the fragments or removal of the splint

As an illustration of this method for the production of local extension, we will suppose an instance in which the fracture has taken place in the forearm, midway between the wrist and elbow The requisites are First, two stout wooden splints, notched at each end, second, some strong moleskin plaster (the double-twilled, prepared for extension of joints, is best), and third, some strong webbing strips First cut *four* strips of the moleskin plaster of sufficient length to encircle the arm, and from two to three inches in width These should be cut in the fan shape, and have strips of the webbing sewed to them To the end of *two* of these strips buckles should be attached To apply the splint the four adhesive strips should be placed upon the forearm, two above and two below the seat of fracture, and on opposite sides of the arm, the extremities interlacing, care being taken to avoid covering the seat of fracture The wooden splints are now to be placed one on either side of the arm, and held there in position by circular strips of adhesive plaster in the usual manner

The next step consists in drawing the webbing strips through the notches at the end of the splints, on each side of the arm, and buckling them together It will readily be seen that the tighter these linear straps are drawn together and secured by the buckles, the more stretch will be produced upon the parts over the seat of the fracture

If the fracture is near a joint the splints must be carried beyond that joint sufficiently to immobilize it, but if in the middle of a shaft, fixation of the joint is not a necessity if the local stretching is thoroughly effected It may be also suggested whether rubber webbing could not advantageously be substituted for the non-distensible form advocated by the writer It would seem, however, that its continuous action would be more apt to produce non-union of the fragments, and at the same time it would certainly cause the adhesive plasters to cut more deeply into the tissues, than if the extension was produced by the rigid webbing

For fracture of the thigh, *four* short splints are used about the length of the thigh itself, and notched in the same manner as those used for the forearm These will require *eight* fan-shaped moleskin strips, to each of which a webbing strip should be attached, as already depicted These should be interlaced above and below the fracture, and the webbing strips drawn tightly over the ends of the wooden splints, which are to be placed on the four sides of the thigh Traction can now be secured as in the forearm, and is maintained and regulated at the will of the surgeon In most cases it will be found preferable to extend the posterior splint above the hip and below the knee, and secure immobilization of these joints for the first few weeks, but the lateral and anterior splints are not changed

This method of treatment allows the surgeon to secure a more perfect coaptation of the fragments, and to maintain and adjust the extension; since the latter depends entirely upon the degree of traction which is exerted. The adhesive dressings, when interlaced in the manner just detailed, not only do not slip, but any increase in the traction causes them to embrace the limb more firmly, and, when the strips of webbing are drawn over the ends of the wooden splints and buckled together, such traction as is exerted is held securely, provided the splint itself be of sufficient thickness not to be bent under the linear strain.

It is a difficult matter to disarrange the fragments if they have been properly adjusted and secured by the method just described, as the traction causes the parts over the seat of fracture to become stretched, consequently causing perfect fixation of the part by forcing the tissues themselves to act as a local and secondary splint, in addition to the remainder of the apparatus.

BENZOATE OF AMMONIA is relied upon by some in enlargements and irritations of the prostate gland, and in hypertrophy of the bladder with alkaline urine. It distinctly renders the urine acid when phosphatic deposits are present. It combines also with the glycocin or sugar of gelatine in the bile, and has some obscure curative relation to some bilious troubles. In jaundice there is a deficiency of glycocin. The dose is fifteen to twenty grains.—*Medical Record*, April 4, 1885.

OBSTETRICS AND GYNÆCOLOGY

AUTO-CÆSAREAN SECTION.—*The British Medical Journal* (February 21st) publishes an astonishing and well-nigh incredible case, which, however, was vouched for by Dr. von Guggenberg, who, in fact, exhibited the patient at the last annual meeting of Bohemian physicians at Tetschen.

On September 28, 1876, he was summoned at two in the morning to see a woman, who was said to have cut open her abdomen. He found the patient lying in a miserable house, on a wretched and dirty bed, exhausted and bloodless, and only capable of making affirmative and negative signs. On removing a dirty petticoat which covered her, an incised wound was seen on the right side of the abdomen, passing downward and inward, from which a somewhat large coil of intestine protruded, the greater part of which, covered with dried blood, rested upon a dirty blood-soaked straw sack. Hæmorrhage seemed to have ceased from every part of the wound, and the uterus was contracted to the size of a child's head. A fully developed, but dead, male child lay between the patient's knees.

Clean linen was procured from a neighboring house, and, with a piece soaked in oil, the protruded intestines were carefully wiped and returned, and the wound sewed up, the peritoneum being included with the skin. The incision was about three and one half inches long, and slightly S-shaped. It was dressed with a five per cent. carbolic solution, fixed with strapping, and the abdomen was carefully bandaged. By the afternoon the patient was able to speak, and next day the history was taken. She had had seven children previously, four of whom had been born without medical assistance, two with forceps, and one after craniotomy. The pains began between September 24th and 25th, ceased in the afternoon, and came on again on September 26th, when the midwife stated that she felt the presenting head on vaginal examination. On September 27th, convulsions came on, according to the patient's account, accompanied by agonizing pain and great distension of the abdomen, the movements of the child ceasing. The pain and distension became so severe that the patient determined to perform Cæsarean section, of which she had heard. She, therefore, took a razor, and divided the skin slowly; she then made a second and third incision, and finding the child not yet appearing, made another cut, which caused a large jet of blood to escape, and exposed the placenta; this she removed.

One foot of the child came into view, which she seized and pulled upon until the whole of the body came through the wound, the head requiring the exertion of all her force. She divided the umbilical cord, laid the child (which she believed to be dead) beside her on the bed, and threw the placenta on the floor. She had passed neither urine nor fæces since September 24th. The progress of the case was very good; urine was passed on the afternoon of September 28th, but the first stool not till October 2d. The pulse reached 120° on the day after the operation, but was never again so frequent; the temperature is stated to have not been very high, and, although there was a considerable amount of exudation from the wound, it had united by October 3d. The patient soon returned to work, and has been ever since in perfect health.—*Boston Medical and Surgical Journal*, April 2, 1885.

AMENORRHŒA PRODUCING EXCESSIVE VASCULAR TENSION.—MR. E. PAGET THURSTAN reports the case of a young lady, æt. 15, of delicate constitution, who had a severe attack of enteric fever. Six weeks after the attack began there were no unfavorable symptoms except that the pulse ranged between 110 and 130. Repeated examinations of the lungs and heart failed to reveal anything abnormal. After a fortnight's treatment with digitalis and cinchona, the pulse was still hard, and ranged about 120. The dose of digitalis was increased from 10 to 15 minims of the tincture. A week's further treatment produced no effect. She was improving in all other respects, but the pulse still averaged 120. She had first menstruated a year prior to the fever. She had not menstruated since she was taken ill. He regarded these effects as due to the enteric poison. A month later, however, she menstruated once more, and the pulse at once subsided to 90.—*Brit. Med. Jour.*, April 25.

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO, ILLINOIS

SATURDAY, MAY 9, 1885

THE INFLUENCE OF SEA-VOYAGING UPON THE GENITO-UTERINE FUNCTIONS

Such is the title of a highly interesting and very valuable paper read before the New York County Medical Society on April 27, by DR J A IRWIN, who is well known as a contributor to the subject of "Ship-Surgeons," which was discussed at such length about a year ago Dr Irwin's facilities for gathering material in the field covered by this paper have been very considerable During the three or four summer months of 1879, 1881, and 1882, he served as medical officer on crowded transatlantic steamers, and at other times he has made voyages either as surgeon or passenger, to India, Africa, Brazil, and other countries, thus having been in charge of some fifteen thousand persons at sea

In the first part of his paper he considers the effect of sea voyaging upon the menstrual function In regard to this, he formed a record while on board vessels of 451 menstruations or missed periods occurring among women in whom the function was usually normal and regular Of 288 women included in this number, all supposed to be non-pregnant and to have menstruated normally before the voyage, 21 passed the period while on board without the flow, 43 menstruated before the regular period, and 224 at the proper period, 23 of whom complained of unusual pain, and in a few cases there were complaints of increased or diminished flow, the remaining 201 were aware of nothing unusual that could be attributed to the voyage The records of these 288 cases were made from information gathered by the stewardess, at Dr Irwin's request Of these then, 69 7 per cent noticed nothing unusual in their menstruation during the voyage, of the 163 who came under his personal observation only 31 9 per cent performed the function normally, and as on land The difference in these results is due, he thinks, to the fact that the former cases were taken haphazard from women travelling in the steerage, belonging to the working classes as a rule, and of that general class which suffers least under ordinary circumstances The 163 cases, however, were taken from among women who were almost all suffering in some way at the time that the investigations were made, and who were usually of higher social life, and more delicate The primary causes for which these patients came under observation, were sea sickness, 118, menstrual aberrations or dysmenorrhœa, 22, various or not recorded, 23 He is inclined to think that a more rigid examination of the cases reported would reduce the proportion of amenorrhœa, as well as of those who reported that there was nothing unusual in their sickness while on board

Assuming, therefore, that disturbances of menstruation are of frequent occurrence at sea, how is the fact to be explained? "The special conditions of an ocean voyage which might be supposed to exercise an influence upon female habit may be classed under three headings *Psychical*, depending upon the novelty of the situation and the apprehension of danger, *aërial*, in some quality of the sea atmosphere, and *motional*, as a direct result of the unaccustomed movement of the vessel It seems, therefore, a tenable supposition that mental influences occasionally play some part in the disturbances especially in the cases, by no means frequent, of a sudden arrest of flow in women who had embarked while actually menstruating They cannot, however, be regarded as a principal cause" Just what influence sea air has upon female complaints it is impossible to say, for the few writers upon this subject differ to a very great extent

The effects of the motion of a vessel upon the human system are very well known "Whether manifesting itself as seasickness, drowsiness, constipation, menstrual aberration, or even in increased vitality, it is clear that sea motion disturbs in some way the established habits of the economy But by far the most striking of these effects is that which forms the subject of this paper, and here I would state my conviction that menstrual disturbances on shipboard are almost entirely attributable to *the motion of the vessel* and that the constant tendency of this motion is to determine an increased blood supply to the pelvic organs. The result differs in degree from a slight and sometimes beneficial, circulatory stimulus, to a positive and dangerous engorgement, *but under all circumstances the primary influence is unquestionably congestive*." The author regards it as an undoubted fact that the sympathetic system is at some time affected. "The irregularities in the advent, term, and quality of the catamenia, the frequent dysmenorrhœa, and the unusual intensification of the symptoms of local diseases are all such as should theoretically result from an unwonted vascular supply, and consequently hyper-congestion of the uterus and its appendages." He shows that a sea voyage may disturb the menstrual habit in relation to periodicity, duration, amount of excretion, and increment of discomfort.

"Of disturbances of periodicity, a premature return of the flow *is by far the most frequent*," as has already been noted by Barker, in his work on seasickness. It may occur at any time during the intermenstrual epoch, but is much more liable to do so when the voyage has been commenced during the first ten days after menstruation on land. Even if the influence be not so great as to cause a reappearance of the flow, the stimulus experienced may be so great as to lead to a diminution or suppression of it at the next regular period. Dr. Irwin says that, contrary to popular opinion, amenorrhœa is a rare condition even in long voyages, especially as a primary condition, but, on the other hand, "complete and passive amenorrhœa for one or more periods after landing is a frequent result of the Atlantic transit." It seems that the more common effect of sea motion upon menstruation is "an aggravation of whatever discomfort is ordinarily associated with that process. Unaccustomed pain marks equally the amenorrhœa or lessened discharge of the plethoric, as the increased and prolonged flow of the anæmic and neurasthenic. In my opinion the statement may be accepted as universally true, that in every type of dysmenorrhœa the discomfort usually experienced will be increased *certainly at the first*, and usually at all subsequent menstruations during the voyage. Next to seasickness, dysmenorrhœa in some form, and often accompanied by considerable intensification of the nervous and systemic phenomena which occasionally mark its advent, is the condition which most frequently appeals to the skill of the ship-surgeon," The author of the paper shows that a voyage made just before the natural advent of puberty tends to hasten the first menstruation, presumably from the stimulating character of the sea influence on the ovario-uterine system.

The paper is summed up by a reference to the cases most likely to be benefited by a voyage, and those in which it would be probably injurious. "An ocean voyage should be regarded as a *potent emmenagogue*, having, in addition to this special quality, a well marked tonic, alterative, and sedative influence. With this character it is entitled to head the list of therapeutic agents of similar effect, and should no longer be prescribed empirically. There are cases in which these local and constitutional properties are especially indicated, and in which they may be jointly utilized with excellent results. In the conditions included under the term chloroanæmia in amenorrhœa, dependent upon deficient tone, or an undeveloped state of the organs, in retarded sexual maturity, in certain forms of leucorrhœa, uterine asthenia, and sterility, and above all in those delicate, gawky, overschooled girls in whom abeyance of uterine function is often among the first warnings of approaching phthisis." It is his opinion that almost every form of uterine and ovarian disease becomes worse while at sea, and that this is especially true of cases in which there is local congestion, uterine displacements being especially liable to give trouble at sea. He records cases of intolerance of pessaries while at sea, and for several days after landing.

The remainder of the paper concerns the effects of sea-voyaging upon the condition of pregnancy. This is a subject, however, which is possibly of not so much general interest as that which we have discussed in the foregoing paragraphs.

It is to be regretted that space will not permit a more extensive notice of this truly valuable paper. There can be no doubt that it is the most comprehensive study of the subject that has ever been presented in any language, and that the information contained in it is of equal service to the ship-surgeon and to the general practitioner.

ATROPIA IN ETHER-NARCOSIS

"Atropia as a Remedy in Ether-Narcosis" is the title of a paper in the *Medical Record*, of May 2, by Dr R W Amidon, of New York Almost everyone will agree with him that the methods of meeting the alarming effects of anæsthetics are not sufficiently defined, nor such as to reflect credit upon the science of medicine, that the cause of death in these cases is a combination of asphyxia and syncope, the failure of respiration being primary, while that of the heart is secondary

It may be experimentally shown that in the case of an animal killed by ether-narcosis the heart will continue to beat with diminishing frequency and force and with constantly falling arterial tension for more than two minutes after the respiratory movements have entirely ceased Dr Amidon suggests that the probable mode of production of the lethal symptoms is about as follows The fall of blood pressure is caused by—1 Exhaustion of the vaso-motor centre by accumulation of carbonic dioxide in the blood, 2 Gradual but almost complete emptying of the left side of the heart and arteries into the veins and right heart, 3 Weakening of the heart The weakening of the heart is caused by—1 Over-distention of the right side of the heart from obstruction of the pulmonary circulation by infrequent and shallow respiratory movements, 2 Malnutrition of the muscular substance of the heart, which is supplied with (A) a diminished quantity of blood because of (*a*) the slowness of the beat, (*b*) the low blood pressure, (*c*) the emptiness of the arteries, (B) a poor quality of blood (a large percentage of carbonic dioxide) The slowing of the pulse is caused by—1 Stimulation of the inhibitory centre by CO_2, 2 unilateral over-distention of the heart, 3 Probable depression by ether of the motor functions of the accelerator centre for the heart

It is thus seen that respiratory failure is very prominent in these cases, and the author of the paper in question justly criticises the inattention in the reestablishment of the respiratory function in the treatment of ether narcosis—not so much the inattention as the uncertain methods in use, and the exclusion of mechanical means or insufflation He criticises also the administration of a synergist (alcohol) in these cases instead of an antagonist, and the tendency to administer a cardiac stimulant for exciting contractions in an over-distended right heart when the cause of the distention, the shallow and infrequent respiratory movements, has not been removed He shows by a table that the symptoms referable to the skin mouth and throat, intestines, urine, arterial tension, pulse, temperature, respiration, pupils, motility, reflexes, sensibility, and consciousness in ether-narcosis and asphyxia and in poisoning by atropia are entirely distinct, and such as may be readily seen at a glance, and he has proved the truth of this by experiments on cats The results of his experiments, he says, "warrant the assertion that atropine, while it does not impair the anæsthetic power of ether, lessens its asphyxiating tendency in a marked degree; also, that when the stage of asphyxia has commenced, the respiration has ceased, and the heart is failing, a timely dose of atropia may save life, and we may hope that, with other means, it may be powerful in the treatment of suspended animation"

In concluding his remarks upon this subject, and in submitting suggestions as to the treatment of ether-narcosis, he recommends that to avoid the depressing effects of anæsthesia, the extremities of the patient should be thoroughly protected, and even warmed by hot bottles For the treatment of the alarming symptoms which sometimes arise he deprecates the use of cold douches and slapping with cold towels, and thinks that hot applications made in this manner are also to be avoided When the respiration becomes embarrassed, and the pulse begins to fail, the ether must be removed, the tongue and jaw drawn forward, and atropia administered hypodermatically if the respiration do not improve at once, at this time heat should also be applied to the limbs and over the heart If there be no improvement in two minutes the atropia should be repeated In sudden cessation of the respiration, when lifting of the jaw and other simple procedures fail to start it again, *mechanical* artificial respiration should be commenced immediately, and for this purpose he thinks that Sylvester's method is the best Here also atropia should be administered as soon as possible, with hot applications to the extremities and precordial region, and a strong current applied diffusely over the chest with a wire brush, one electrode being placed over the spinal column in the cervical region The atropia should be repeated if signs of recovery be not manifested in a minute

It is also his opinion that venesection would be of great service in these cases, if the subject be plethoric and no hæmorrhage has taken place, an opinion partly based on the fact that he has seen the heart commence to beat (in an experiment on an animal) after a free incision into the liver, or a section of some large venous trunk, or an incision into the distended right heart itself, which suggests that the operation of cardiac aspiration might be performed with benefit in some of these cases

PAPER VERSUS SLATES IN SCHOOLS

A correspondent in a recent daily paper over the *nom de plume* of "Parent," complains most bitterly of the action of the Board of Education in substituting paper blocks for the "slates of our daddies" Among other unreasonable observations, he says the action of the board "is certainly dictated by no principle of practical common sense" The writer does not know why the board substituted paper blocks for slates, but he does know that black on white is unquestionably far easier to determine than white on black, and consequently it removes one of the causes of myopia

When we consider that myopia is greatly increasing in this country, and that it is the cause of about ten per cent of all cases of blindness (*Ophthalmic Review*, April, 1885, p 94) we ought to be very thankful that the board realizes in a measure its responsibility, and is determined to diminish, as far as possible, all known causes of myopia "Parent" only objects to the difference in the expense Of course it is hard for poor parents with a large number of children to pay for books, paper, etc , but how much more expensive a single child with defective eyesight ! There is no question but that myopia is developed in direct proportion to the unfavorable surroundings and the amount of near work exacted of the young, thus, according to Cohn's statistics in village schools, it was present in only $1\frac{4}{100}$ per cent of the pupils, while in universities it was as high as 59 per cent

AMERICAN MEDICAL ASSOCIATION

The thirty-sixth annual meeting of the American Medical Association was held in Tulane Hall, in the city of New Orleans, La , commencing on Tuesday morning and continuing until the following Friday afternoon, as usual The president, Dr Henry F Campbell, of Georgia, presided, ably assisted by Vice-Presidents Lynch, of Maryland, Mercer of Nebraska, and Parsons of New Hampshire

A new and more systematic arrangement had been made for the registration of members, by which most of the crowding and delay experienced in previous years was avoided Indeed, the entire work of the Committee of Arrangements had been well planned, and so executed as to add greatly to the comfort and convenience of all attending the meeting The social entertainments were judicious in amount and exceedingly pleasant The proceedings in the general sessions were characterized by harmony and good order, and the scientific work done in the Sections equal to most of the meetings previously held The only subject on which action was taken of doubtful propriety, was in relation to the proposed International Triennial Medical Congress of 1887 The conflicting character of the resolutions adopted last year and this, will require much wisdom and moderation on the part of the committees to adjust properly But we trust the adjustment may be made in such a way as not to materially injure the character and importance of the Congress itself About 800 delegates and members were reported as registered at the meeting The full official record of proceedings of the meeting will be given together as soon as received from the permanent secretary

THE TREATMENT OF HÆMOPHILIA

In the December number of the *Bristol Medico-Chirurgical Journal,* Mr J Greig Smith reports two cases of hæmophilia, with remarks on the treatment of the affection In the first case, the blood which came from the wound was of the ordinary watery nature, as observed after considerable hæmorrhage, the hæmoglobin was only six-tenths of the normal, and the corpuscles 1,600,000 instead of 5,000,000 One curious feature in this case was the fact that every large joint in the body has been affected at one time or another Any little rough treatment would cause the joints to become distended, probably with blood The joints usually fill in a few hours, cause much pain, and subside in a few days

As regards the treatment of this affection, Mr Smith has little to offer that is new, but his remarks are worthy of careful consideration He does not believe in medicine, the patient should be let alone, he thinks, except that absolute rest in bed, mentally and bodily, locally and generally, with milk diet, and very simple dressings lightly applied The actual cautery, strong pressure, powerful astringents, and everything tending to destroy weakened tissues, are to be condemned Even a nasal plug, if necessary, should be of the lightest, and it should be renewed once daily He thinks that lint soaked in spirits of turpentine is the best local application For constitutional treatment he has used gallic acid, in fifteen-grain doses every three hours, turpentine in dram doses every two hours, purgative salts and Rispini's styptic—all during the period of hæmorrhage The perchloride of iron may be given in the intervals He regards opium as very valuable during the bleeding, it quiets the patient, and thus gives physical rest

STATE MEDICINE.

THE KANSAS MEDICAL LAW

The following is a copy of the act passed at the last session of the Kansas legislature creating a State Board of Health

House Bill 167 To create State and Local Boards of Health, and to regulate the practice of medicine in the state of Kansas

Be it enacted by the Legislature of the State of Kansas SECTION 1 Within thirty days after this act shall take effect, the governor, by and with the advice and consent of the senate, if it be then in session, shall appoint from different parts of the state nine (9) physicians who shall be men of good moral character and temperate habits, of not less than seven years' continuous practice in their profession, and each of whom shall be a graduate of a respectable medical college, and said nine physicians, when so appointed and confirmed, shall be known as the Kansas State Board of Health Three of said physicians shall be appointed for one (1) year, three for two (2) years, and three for three (3) years, and annually thereafter the governor shall in like manner appoint three physicians of like character and qualifications to fill the vacancies occurring in said board by reason of the expiration of the terms of service, as herein provided, and the persons so appointed shall hold their respective offices for the like term of three years, and until their successors are appointed and qualified, but in no case shall the governor appoint a majority of the physicians that shall constitute said Board of Health from any one school of medical practice, nor shall said board at any time be composed of persons a majority of whom shall be of the same school of medical practice Upon the appointment of the nine physicians provided for in this act, the secretary of state shall issue to each of them a certificate of his appointment, and within twenty days after such appointment the said nine persons shall meet in the city of Topeka, and they shall each take and subscribe the oath prescribed by law for state officers, which oath shall be filed with the secretary of state, and thereupon said board shall immediately organize by electing one of its number president They shall also elect a secretary, and said secretary shall be the executive officer of said board, but not a member thereof The secretary shall execute a bond in the sum of $5,000, which shall be filed with the secretary of state

SEC 2 The State Board of Health shall adopt and publish such rules as may be necessary to make this act effective and facilitate the transaction of its business It shall provide a seal, and all correspondence and papers emanating from it shall be under the seal of said board It shall meet quarterly, or oftener if deemed necessary, the first meeting to be held at Topeka The annual meeting after the first shall be held at Topeka in June of each year No member of the board shall receive any compensation for services rendered, except for travelling and other necessary expenses while employed on the business of the board The secretary shall receive such compensation as may be allowed by the State Board of Health and approved by the governor

SEC 3 The secretary shall hold his office so long as he shall faithfully discharge the duties thereof, but may be removed for just cause at any regular meeting of the board He shall keep a record of all the transactions of the board, shall communicate with other state boards of health, and with the local boards of health within this state

SEC 4 The State Board of Health shall supervise the health interests of the people of this state They shall make careful inquiry into the cause of diseases, epidemics, investigate the sources of mortality, and the effects of localities, employments, conditions, habits, and surroundings on the health of the people They shall advise officers of government, or other state boards, in regard to the location, drainage, water supply, disposal of excreta, heating and ventilation of public buildings They shall collect and preserve such information relating to forms of disease and death as may be useful to them

SEC 5 The State Board of Health shall supervise the registration of marriages, births, and deaths, and also the registration of forms of disease prevalent in the state, and the secretary shall superintend the registration of the vital statistics of the state The State Board of Health shall also prepare the forms and establish the rules by which permits for transporting the dead bodies of persons for burial beyond the county where the death occurs, and in all cases the said Board of Health shall require coupons to be attached to such permits, to be detached and preserved by every common carrier, or the person in charge of any vessel, railroad train, or vehicle to which dead bodies shall be delivered for transportation Any violations of these rules shall subject the offender to a fine of $10 for each offence

SEC 6 The State Board of Health shall appoint committees or engage suitable persons to render special sanitary service, to make practical or scientific investigations and examinations And it is hereby made the duty of all officers and agents having the control of any public work to permit any examination ordered by said board, and the members of said board, and such other officer or person as may at any time be by said board authorized, may examine and survey all grounds, erections, vehicles, structures, etc

SEC 7 The county commissioners of the several counties of this state shall act as local boards of health for their respective counties Each local board thus created shall elect a health officer, who shall be a member of the board

SEC 8 Every person proposing to engage, or to continue in the practice of medicine in this state, shall, within thirty days after the organization of the State Board of Health, present to the secretary of said board a diploma from a legally organized medical college, or an affidavit or other satisfactory evidence that the applicant is a graduate in medicine from such school, which shall be submitted to the State Board of Health at its next meeting, and, if satisfactory to said board, a certificate shall be given, which certificate shall be recorded by the county clerk and kept in the office of the county clerk, and this certificate shall be conclusive evidence of the right of the owner of the same to practice medicine in the place designated in the certificate, and any person who is not a graduate of a reputable school of medicine shall present himself before the State Board of Health at any regular meeting of the board, and submit to such elementary and practical examination by the board of health as shall test the qualifications of the candidate as a practitioner of medicine, surgery, and obstetrics, and every candidate passing a satisfactory examination shall receive a certificate This act shall not apply to commissioned officers of the United States army or navy or marine hospital service

SEC 9 Every person applying for a certificate, as provided for in this act, as a graduate, shall pay a fee of $1, and every person applying for a certificate, on examination, shall pay a fee of $10, all of which shall be paid into the state treasury And every person practising, or attempting to practise, medicine in this state without such certificate regularly filed with the clerk of the county in which he resides, shall, upon conviction, be fined not less than $10 nor more than $100 for each and every offence, to which may be added imprisonment not to exceed ninety days And a person filing, or attempting to file, as his own a bogus diploma or a false affidavit of identification, shall be guilty of a felony, and, upon conviction, shall be subject to such fine or imprisonment as provided by the statutes of this state for the crime of forgery, and shall forfeit all right to practise medicine in this state And any itinerant physician who shall, by writing or printing, or by any other method, publicly profess to cure or treat diseases, injuries, or deformities, shall pay to the state treasurer a special tax of $100 each month he shall practise, and for every failure to pay such tax prior to engaging in such practice he shall, upon conviction, be fined not less than $100 for each offence, or imprisonment for not less than ninety days in the county jail, or both

SEC 10 It shall be the duty of every physician practising his profession in the state of Kansas to keep a record of the deaths occurring in his practice, noting the form of the disease, and to report the same to the local board of health, and any failure to do so will subject said physician to a fine of $10 for each offence

SEC 11 It shall be the duty of assessors of personal property in the several townships and wards of cities throughout the state annually to collect such information as to marriages, births, and deaths as may be required by the State Board of Health, and report the same to the local boards of health

SEC 12 It shall be the duty of the State Board of Health, on or before the first Monday in January of each year, to make a report in writing to the governor of the state upon the vital statistics and the sanitary condition and prospects of the state, and shall suggest any further legislation deemed proper for the better protection of life and health The annual report of said board shall contain a detailed account of the money paid out by or on account of said board and a detailed statement of the manner of its expenditures during the past year, but the amount shall not exceed $5,000 in any year

SEC 13 All prosecutions under this act shall be conducted by the county attorney for the county in which the offence was committed, in the court having jurisdiction, and all fines imposed and collected shall be paid into the county treasury to the credit of the school fund

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

Professor Sée on Prescription Writing—The Alcohol Treatment of Pneumonia—Cocaine—Death of Dr Bovell-Sturge

Professor Germain Sée lately delivered a very interesting lecture at his clinic at the Hôtel Dieu, on the importance of writing out prescriptions properly A prescription, he said, should be based on physiological and therapeutical science, but how many physicians simply copy the formula of some specialty without stopping to inquire whether it would be suited or not to the case they are called upon to treat He has therefore found it expedient to institute a course of lectures on what he termed clinical therapeutics

He proposed treating of the subject as follows 1 The art of formulating, which concerns the pharmacien, 2 The art of prescribing, which interests the patient himself, and instructs him as to when and how he should employ his remedies, 3 The art of dosing, which is more a science than an art He then developed these heads in the following terms The shortest prescriptions are the best Avoid all unnecessary association of several drugs in the same formula, and guard against imitating the ancients, who attributed the efficacy of their drugs to some mysterious alloy of substances sometimes most dissimilar Recourse must be had to the most simple vehicles, water or syrup for soluble substances, mucilage for those that are insoluble There can be no inconvenience in associating in one formula substances chemically antagonistic, opium and tannin, for example, which latter precipitates the alkaloids That which it is most important never to associate are physiological antagonists, as opium and belladonna, the bromide of potassium and the iodide of the same metal, etc, and yet such combinations are daily to be met with in the prescriptions of some of the most eminent physicians of the day The dosage of medicines is of the highest importance, as when a drug is administered in a smaller dose than that assigned to it by experience, its therapeutical action cannot be expected, and when given in overdoses the patient is simply subjected to slow poisoning,

In the treatment of pneumonia by alcohol, the usual practice, in France at least, is never to give more than 50 or 60 grammes of alcohol a day, whereas Todd, who originated this treatment, gave his pneumonic patients as much as 300 to 500 grammes daily of old brandy This, Professor Sée considered rather a large quantity, and he himself prescribes brandy to the extent of only 250 grammes a day Under the influence of this quantity which would be considered an exaggerated one in health, patients experience only a little excitement and a happy feeling, they do not feel in the least intoxicated, and what is more advantageous to them is that they get well The explanation given of this phenomenon is that which was taught by the late Claude Bernard the patient acquires a physiological state peculiar to himself, it is not a new physiology, it is a physiology in new conditions

Like all good things in this world, cocaine, which has been recently introduced into practice, and been adopted with such enthusiasm, has also its reverses In the first place its extreme dearness is a great drawback, but this no doubt will soon be overcome, as the remedy will become more general, and consequently the demand for it greater But what concerns patients and medical men most is its deleterious effects, which are more or less marked, according to the susceptibilities of the patient, even when employed externally In a case of phthisis, in which the patient was subject to violent attacks of dysphagia, Dr Ernest Labbée employed the following solution, with which he painted the epiglottis twice a day hydrochlorate of cocaine, 1 gramme, rectified alcohol, 2 grammes, distilled water, 10 grammes This solution afforded great relief during the first two days, but on the third day, symptoms of poisoning set in, which were marked by great physical and mental depression, a thready pulse of 100 to the minute, sleep heavy, but the patient was much agitated, and at the same time greatly prostrated The application was discontinued, and the above symptoms disappeared, but the relief that the patient experienced at the commencement (deglutition without pain, digestion good, a feeling of coolness in the regions of the pharynx and larynx) persisted even after the eighth day

The death of Mrs Bovell-Sturge is announced as having taken place on the 2nd of April Miss Bovell was one of a party of young ladies who some years ago went to Edinburgh with the view of studying medicine, as they could not get admission to any of the other medical schools in Great Britain, but there were so many difficulties thrown in their way that they were obliged to give up the idea of prosecuting their studies there Miss Bovell then determined (1873) to go to Paris, and after having studied medicine and walked the hospitals for four years, she took her degree as Doctor of Medicine of the Faculty of Paris in 1877, after having passed her examinations in a highly creditable manner The subject of her thesis was "The Congestive Phenomena Consecutive to Attacks of Epilepsy and of Hystero-epilepsy" After having taken her degree she went to London to set up in practice, and there married Dr Allen Sturge, of that city She was shortly after appointed physician to the New Hospital for Women, where she was highly appreciated for her services Ill health, however, having compelled her to leave London for a more genial climate, she went to Nice with her husband in 1881, where they settled in practice A B

DOMESTIC CORRESPONDENCE.

LETTER FROM PHILADELPHIA

(FROM OUR OWN CORRESPONDENT)

A Lecturer on Physiology Appointed in the University—A Professor of Chemistry Elected in the Jefferson College—University News,—Veterinary Department, Biological Department, Commission to Investigate Spiritualism, Prof Osler's Gulstonian Lectures—Dr Sternberg and Dr Gihon in Philadelphia—The Philadelphia Water Supply

Since my first letter, the two professorial vacancies referred to in it have been filled, the one, as predicted, by the election of a candidate for the position to lecture for a year, at the end of which time the chair will probably be permanently filled This refers to the chair of physiology in the University of Pennsylvania Dr Edward T Reichert was, at a recent meeting of the trustees, appointed to deliver the lectures on physiology for a year Dr Reichert graduated at the medical department of the university in 1879, and has since devoted himself to the study of experimental physiology and therapeutics He has written a number of useful papers on these subjects, and has done considerable experimental work with Dr S Weir Mitchell, whose support he had for the position to which he has just been chosen The chair of chemistry in the Jefferson Medical College has just been filled by the election of Prof Holland, of Louisville, to succeed Prof Mallet Prof Holland is a graduate of the Jefferson school, of the year 1868 For the position to which he has been chosen there are said to have been a very large number of applicants, several of whom reside in this city, and some of whom had strong hope of being elected But the Jefferson College has again gone abroad for a teacher, perhaps because it has not regretted the policy which brought to it such men as Professors Gross, Bartholow, Parvin, and Mallet Certainly, aside from the natural preference of a Philadelphian that the market should be supplied from his own vicinity, it would be hard to point out any impropriety in the trustees exercising their discretion by choosing what and where they think best

In the University there is always something going on Since my last letter, besides what I have already mentioned, there has been an appropriation of $16,000 by the trustees for additional buildings for the Veterinary Department, which are to contain a bath for sick, and a room for insane animals The Biological Department has also received an addition to its funds, and the gift of a valuable herbarium from Mr Isaac Burk An interesting matter in the history of the University is the investigation of so called spiritualism by a commission, supplied by funds for the purpose by a bequest from a Mr Seybert, a rich citizen of Philadelphia, recently deceased, who was much interested in this subject This commission is said to be almost ready to make a report It has endeavored to conduct the investigation fairly and thoroughly Invitations were sent out to a large number of professional mediums in the country, and to a number of men who profess to expose or imitate spiritual manifestations Among the mediums who have given private *séances* to the commission are Dr Slade, of New York, Mrs Lord, and others, while the opponents of spiritualism have been represented by such men as Mr John Truesdell, of Syracuse, N Y, who made an amateur study of spiritualism, and wrote the *exposé* entitled "Bottom Facts," and Mr Kellar, the professional magician, whose performances far surpass in fairness and incomprehensibility the best performances of the spiritualists Of the latter fact your correspondent may speak with some assurance, as he has personally investigated the performances of Mr Kellar, and learned to admire their mystery and the openness with which they are done He, and such men as he, have imitated before the commission the most important tricks of the mediums, such as slate-writing, reading and answering sealed letters, and the so-called cabinet tricks, as well as such inferior performances as table tipping and rapping It is not known to what conclusions the investigations of the commission have led, but it is suspected that they coincide with those of most sensible people who are not of the commission If, however, they have met with manifestations of spiritualism which seem to them inexplicable by natural forces, they will not be afraid to say so

Professor Osler, who came so recently from Montreal to the University, has just returned from his trip to England, where he delivered the Gulstonian Lectures for this year before the Royal College of Physicians These lectures, on "Malignant Endocarditis," have been so widely published in the medical journals of Great Britain and of this country that it is hardly necessary to more than allude to them But it may be interesting to note that, besides the appointment of Professor Osler to deliver these lectures being a personal compliment, this fact, and the high character of the lectures themselves, are calculated to attract attention abroad to the labors of American physicians in the field of science

We have been having a lecture before the Pathological Society by Dr Sternberg, of the U S Army, on the great bacteria question, the instructiveness of which was followed by the attractions of a supper at the Social Art Club Only the day after this Dr Gihon, of the Navy, gave the third of the series of popular lectures on hygienic subjects before the County Medical Society, and the public His subject was "Sanitary Ignorance," and it was handled in the usual manner The preceding lecture, by Col Ludlow, on the water supply of Philadelphia, and its relation to the public health, of which I spoke in my previous letter, stirred up a hornet's nest Some of the city councilmen took great umbrage at it, and succeeded in having a resolution passed requesting the colonel (who, as I explained, is chief engineer of the Water Department), to cease to lecture in such a manner as to alarm the public Colonel Ludlow replied that his lecture was not calculated to alarm, but to instruct the public, and criticised sharply the language and manner of some of the councilmen who, in discussing the resolution, had spoken most intemperately and offensively about him As all Philadelphia considers the present chief engineer the most efficient we have ever had and as the opposition to him comes principally from men who cannot forgive him for taking the Water Department out of practical politics and managing it on strict business principles, and as there is the best ground for complaint of the influence of politics on the water supply of the city, the whole thinking part of the population is on the side of Col Ludlow The County Medical Society, by special resolutions, has approved of the matter and manner of his lecture and indorsed his position in relation to his critics in Councils As the discussion of the impurity of Philadelphia water has been widespread, and as its drawbacks have been sometimes exaggerated, it may be worth while to say that, while there is no good evidence that the water drunk here is dangerous to health at present, it is certainly far from pure, and often very unpleasant to the senses of smell and taste For these reasons alone it should be attended to, and, further, under the existing circumstances, the character of our water is likely to deteriorate as years go by, and it is high time the community should be stirred up sufficiently to force their representatives to do what their own sense of what is right should have prompted them to already that is, to give the citizens a water supply which it would be no disgrace to have most thoroughly and freely discussed Unfortunately, at the present time this city has had a relapse from the virtuous standard toward which it made such heroic strides a few years ago It has come again under the almost full control of what are known as "the politicians," and it is as much as we can do to save here and there an important office from the managers Col Ludlow was elected by Councils under the pressure of the reform wave, but now they would be glad to get rid of him It is to be hoped that, so far from this happening, as it only could by some motion of this officer, it may prove feasible to long retain in the service of the city so competent and so conscientious a head of a department C W D

THE QUESTION OF INEBRIETY

Some time since the writer published in the New York *Medical Record* a short article upon this subject, taking the view that, though vice is not always the cause of inebriety, it is a very prominent factor in its causation, thus controverting a rather radical opinion expressed by an able physician of Hartford, Conn Since that time some private correspondence has passed between that gentleman and myself, among which was a request from him that I would give the matter careful clinical study, which it has been my endeavor to do Having done this, while it has no doubt increased my appreciation of the importance of the relation of disease to inebriety, it has also strongly confirmed the belief that vice, or vicious influences, hold a no less important relation to that condition To say that inebriety is always, in all its stages, a disease, is so absurd, so contrary to every day evidence, that a refutation or a contrary statement of opinion would seem to be scarcely necessary Yet there is a certain class of physicians, for whose opinions I have the highest regard, who are guilty of just this seeming absurdity They are not even willing to concede that it is a matter susceptible of argument, claiming that all preconceived theories and notions of moralists and others must yield to what they consider to be a scientific fact, as they understand it It is a forced issue, and to meet it trite facts must be restated and new evidence elaborated To my mind it is similar to the question of the contagiousness of tuberculosis While some experimenters are spending the best moments of their lives trying to prove the contagiousness of that disease, the solid facts of years of experience still convince us that it is not so

There are two classes of conditions which predispose to inebriety, viz the unavoidable and the accidental or occasional, or, with some limitations, the converse of the first, the avoidable. The first class consists almost, if not quite, wholly of the sequences following one general condition—heredity A hereditary disposition to become a drunkard does not necessarily imply that a parent, or any other ancestral relative was a drinker to excess, or even a drinker at all It does not imply that a father or a mother, or any other relative, was addicted to any vice whatsoever, and may not have been as pure, morally, as the angels in heaven, though it may imply all of this The inebriate's parent may have been an epileptic or a fool, or may belong to the race of modern dudes, though in all other respects without fault Neither one of these three transmitted to his offspring a direct tendency to drink, or probably a tendency to any other direct evil, transmitted, in fact, nothing but a weakened intelligence But a weak intelligence means a small power of will, combined with an inability to foresee results, consequently the individual falls into the trap nearest his hesitating step Once in, he has not the power to get out, the nutrition of the nerve centres being further impaired by each successive indulgence The weakness of the will power renders all kinds of bodily distress or mental worry especially hard to be borne, and the temptation to relieve them by narcotic indulgence more readily yielded to The end in such cases is not far, nor yet uncertain

Conversely to the above statement is another proposition equally true, that an inebriate progenitor may not always, indeed, may never, transmit to his children a tendency to the same evil, but the heredity may consist in insanity, epilepsy, or some neuralgic affection In my judgment to this point is about as far as we can carry the disease theory of inebriety In so far it is a disease not acquired, but hereditary, and only this so far as hereditary weakness of mental power conduces to this result

Perhaps the most prominent among the accidental causes of inebriety is the accident of environment The community in which a youth spends his opening years, will, as a rule, shape his entire habits of life Two boys of like mental habits and impulses, the one placed for ten years in a beer drinking community, without special religious training, the other placed in a Christian family, in a religious community, though not without drinking places, will grow up to be correct representatives of their surroundings I know of a whole neighborhood in which beer drinking is indulged in unanimously, and I know of another neighborhood in which it is, practically speaking, never used Who can doubt, religious considerations aside, that the young men and women of the one place drink their beer because it is the custom, and those of the other place abstain for the same reason?

The accident of one's surroundings is a potent factor in the causation of inebriety The accident of occupation is important Who ever saw a non drinking saloon keeper, or brewer, or distiller of spirits? There may be some, but the exceptions are rare Wine and spirit salesmen are practically all drinkers Next to these, perhaps the most numerous class of regular tipplers is found among the fraternity of travelling salesmen This is Anstie's experience, and he also says that he has found the most confirmed inebriates among those whose occupation is monotonous, especially barbers and shoemakers

Those who drink heavily and are oftenest intoxicated are among individuals whose occupation subjects them to severe exposure to the weather, rough physical labor, and continuous low companionship The reason for this state of affairs is found in the constant familiarity, direct and indirect, with the intoxicating agent — which familiarity does not, as it should do, breed contempt A depressed mental condition, caused by loss of fortune or occupation or of dear friends, while possibly a diseased state, is yet among the accidental causes of inebriety, and the victim seeks the narcotizing agent, not to fulfil his purpose in its use solely, but that he may through its influence find oblivion The same individual would as readily use opium, or hasheesh, or chloral, if they were as convenient, and would answer the purpose as well

In my judgment the vast majority of inebriates are such because they choose to be, and their choice is decided, either by vicious associations, or by a depraved personal disposition, or both The remainder are victims of a direct hereditary predisposition to the use of intoxicating agents, or of a hereditary deficiency of brain power, rendering them peculiarly liable to yield to external temptations Even in this class of cases vice may, and probably does, bear a remote relation to the present condition

J B Stair, M D

Spring Green, Wis, April 25, 1885

NECROLOGY.

REPORT ON THE LIFE AND CHARACTER OF PROFESSOR SAMUEL D. GROSS

BY AUSTIN FLINT, Sr,

CHAIRMAN OF THE COMMITTEE

Read to the American Medical Association, April 28, 1885, by T G. Richardson, member of the committee

On the fifth of May, 1884, I was at the bedside of the one who, above all his brethren, was held in honor and esteem by the medical profession of America It was but too apparent that the labors in this world of Samuel D. Gross had ended, and that he was near the end of his earthly life I left his bedside to be present on the following day, at the annual meeting of the American Medical Association in Washington The President of the Association in his opening address referred to the absence of Professor Gross in connection with a request from him in a letter which was one of the last, if not the very last, written before his departure to another life, that an invitation be given by the American Medical Association to the International Medical Congress to hold its meeting in this country in 1887 The announcement of the serious illness of Professor Gross called forth a quick and warm response from the members of the Association It was a remarkable coincidence that at the very hour the Association was engaged in a discussion as to the manner in which heartfelt sympathy should be expressed and conveyed to Professor Gross, he was in the article of death The telegram which carried the resolutions adopted by the Association reached its destination but a short time after he had breathed his last

On the announcement to the Association of the death of Professor Gross, a committee was appointed to "take such action as it might deem proper"[1] As the chairman of this committee, with the approval of my fellow members, I submit to the Association some reflections on a life memorable for services in behalf of medicine and the medical profession, a life precious as an example, and a character which inspires esteem and affection

I do not propose to write a biography of Professor Gross This has been done by able hands[2] Nor would I have my reflections regarded purely in the light of a eulogy My desire is to contemplate his life and character from the vantage-ground of a long and intimate personal friendship Disclaiming any attempt at rhetorical efforts in the way of panegyric, I will survey his life and character with reference to his long and preeminently successful professional career, and to the qualities which distinguished him as a man

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[1] The members of the committee are as follows Dr A Flint, T G. Richardson L A Sayre John H Packard, F H Hamilton, Moses Gunn William Thomson Briggs, and I M Hays

[2] Memoir by I Minis Hays Am Jour of Med Sciences, July, 1884. In Memoriam, by Professor J M DaCosta

My friendship with Professor Gross commenced when we were colleagues in the medical department of the University of Louisville in 1852. Friendship ripened quickly into close intimacy, which continued without, for an instant, a shadow of a difference, up to his death. We were more than friends. Esteem and affection are terms which, although superlatively qualified, express inadequately my attachment to him. I loved him. The sentiment of love—that divine attribute of humanity—was, I believe, reciprocal. I can, therefore, as I think, without presumption, view his life and character with an insight embracing the feelings, aims, and motives underlying external appearance and actions.

The life of Professor Gross, from the beginning to the end of his long professional career, was a life of work—work as a student, a writer, a teacher, and a practitioner. From first to last he was a diligent student. If in his advancing and advanced years he held tenaciously to opinions previously formed, it was not from any lack of knowledge covering recent views, but because they failed to subvert his convictions. To hold fast to these after due deliberation was a strong mental characteristic. His was not a mind to be carried away by every wind of doctrine. He may have been open to the charge of an undue tenacity of convictions, but, if so, it was not from a pride of personal opinions, but from a reluctance to relinquish aught which he had been led to believe was true. Conservatism entered largely into his mental constitution. His mind rebelled against immature innovations. Yet no one at heart was more desirous than he for progress in medical knowledge and improvements in its practical applications.

A few months before his death I was present with him at a consultation in a case which involved certain surgical questions. He entered fully into a discussion of these and of kindred topics which the case suggested. Associated in the consultation was a comparatively young surgeon, eminent for his knowledge of the literature of surgery as well as a skilful operator. He afterward expressed his admiration at the familiarity of Prof. Gross with the latest contributions to surgical knowledge, not only in our own language, but in that of Germany and of France. The last edition of his great work on surgery, published but seventeen months before his death, as I am informed by those competent to judge, is remarkable as showing a thorough acquaintance with contemporaneous publications, bibliographical and periodical, relating to the surgical department of medicine. His life-work exemplifies the motto, "Once a Medical Student Always a Medical Student"—a motto which all who aspire to true success in the profession of medicine will do well to adopt.

Professor Gross commenced the practice of literary composition at the very beginning of his professional life. Ten months after his graduation he had translated for the press four works, three of which were in the French and one in the German language. At the end of two years he had published his first original work, a "Treatise on the Anatomy, Physiology, and Diseases of the Bones and Joints." Afterwards, up to a few weeks before his death, his pen was never idle. As is well known, he was a voluminous writer. His vacations were infrequent and generally of brief duration. He was always engaged either in writing or in making preparations to write some one of his many and various contributions to medical literature. The six editions of his great work, "A System of Surgery," represent an immensity of labor. Collectively, the productions of his pen must seem to many astonishing, especially when it is considered how much of his time was necessarily occupied with the duties of a medical teacher and practitioner.

From his life as an author may be learned the importance of early practice to those who aspire to authorship. How many who cherish such an aspiration in the dim future, remain content with present inaction! Continued procrastination is equivalent to indefinite postponement, and the latter to inability. The art of composition, in addition to ambition and capacity, requires practice, and practice comes from love of that kind of work. Authors in medicine do not spring like Minerva in full armor from the head of Jove.

Another lesson which his life teaches is that great literary labors may be performed in conjunction with other occupations which are irregular, time-consuming and claiming precedence. Under how different circumstances are these labors performed by the medical practitioner and teacher, as compared with those who make literature a profession. The practice of medicine often leaves but few hours of leisure. They can rarely be counted upon, and to systematize them is seldom possible. Moreover, the duties of medical practice engross not only the time, but the thoughts and feelings of the practitioner. How was Professor Gross able to accomplish such a vast amount of literary work? By the use of whatever hours could be appropriated without the neglect of professional, social, or domestic duties, and by utilizing the scraps of time which would otherwise be lost. For the evenings or portion of evenings which would be appropriated for study or writing he was at home only for his intimates, and they were considerate enough to disturb him but seldom. A large part of his writings, as he assured me, was composed in his carriage while driving to see his patients. The aggregation of the results of this system of daily industry would seem incredible to one not prepared to form an estimate by observation or personal experience.

Professor Gross resolved at the outset of his professional life to become a medical teacher. Is not this true of most of those who have been eminently successful in acquiring the art of teaching? Observation shows that few who begin late in life attain to much success. In many respects Professor Gross was a model teacher As a speaker he was fluent, deliberate, clear, and emphatic His hearers could not but feel that his object was to instruct, not to excite admiration for his own attainments or skill He had the faculty of appreciating the kind of information to be communicated by oral teaching to medical students, and of knowing how to communicate it Herein lies the secret of the successful teacher and of his popularity as such The personal appearance of Professor Gross in the lecture room was most prepossessing His tall, commanding figure, his clear voice, his features beaming with intelligence and animation, his zealous manner—all contributed to render his teachings effective He had that magnetism, attracting to himself the attention and interest of his audience, which is a gift invaluable to a speaker Apart from these advantages, his preeminent success was an outcome of his love of the labor and a deep sense of the responsibility which the duties of a teacher involve As an evidence of the latter I quote the words with which he concluded his inaugural address on entering upon the duties of professor of surgery in the Jefferson Medical College "Whatever of life and of health and of strength remain to me, I hereby, in the presence of Almighty God and of this large assemblage, dedicate to the cause of my Alma Mater, to the interests of medical science, and to the good of my fellow creatures "[1]

As a practitioner, the characteristics of Professor Gross, irrespective of his ability and skill in medicine and surgery were attentiveness and a deep interest in his cases, conjoined with geniality and kindliness These characteristics were in harmony with self-respect He neither belonged to the bullying nor to the cajoling class of practitioners His face and manner brought into the sick-room beatitude In this aspect his professional life might well be held up as a model for imitation

Turning from the life picture of Professor Gross in its professional aspects, the contemplation of his character as a man awakens higher sentiments than admiration As a student, author, teacher and practitioner, he was grand, but it is more pleasing and ennobling to associate his memory with his domestic and social relations In him there was not that incongruity so often painfully conspicuous between the outer and the inner man We cannot but admire the achievements of his intellect, but the excellency of his heart inspired affection and love

Sensitiveness and tenderness he had in a marked degree In the performance of his professional duties these were held in complete control by the force of his will, but there were occasions when his feelings could not be kept in restraint even in the presence of other than his intimate friends When we were colleagues at Louisville, on one occasion, on entering the college amphitheatre with a friend who was desirous of listening to his lecture, a remarkable spectacle presented itself Professor Gross was walking backward and forward, his arms folded and his eyes fixed upon the floor There was perfect silence and the faces of all the members of the class expressed distress The moment he saw me he exclaimed "Professor Flint, I have been deeply insulted!" I suggested to him quietly that we should retire to another room I then learned that some one had placed on his table a package with a note asking him to make its contents the subject of his lecture He unrolled the package before the class and found that it contained an injected specimen of the male organs of generation He said nothing but assumed the attitude in which I had found him I suggested to him that there had been no intention of offering an insult, but that a coarse-minded, thoughtless student had sought to practise an amusing practical joke, and that the appearance of the class showed their profound sympathy He at once accepted this explanation, returned to the amphitheatre and gave his lecture with his usual clearness and animation

The death of Daniel Drake took place during a winter session of the college at Louisville With Dr Drake he had been associated as a colleague, and they were warmly attached friends He attempted to announce to the class the death of his friend who had been recently connected with the college He had scarcely commenced when his feelings overcame him, he was unable to go on, his utterance was prevented by audible sobbing, and he was obliged to leave the lecture room

His kindliness toward every one with whom he was brought into contact was a noticeable trait of his character There was no appearance of pseudo dignity, nor of the cold reserve of self-conceit That he was gratified by the approbation of others, and pleased by the honors which were showered upon him, he made no effort to conceal He was, however, as desirous of honorable estimation for his friends as for himself He was ever alive to opportunities to promote the welfare and reputation of those to whom he stood in friendly relations He was prompt to encourage worthy efforts in the way of contributions to medical knowledge, by those with whom he was personally unacquainted Many a writer, a stranger to Professor Gross, has been surprised by a note from him expressing his gratification and kind wishes He was a constant attendant of the meetings of the American Medical Association, and how many can recall with pleasure his benignant smile and cordial salutations! All who have known him will remember the quiet, playful humor associated with his kindly disposition His badinage was of a nature to enliven, but never to offend or to cause pain Sarcasm and ridicule had no place in his discourse His conversation was never profane or unclean No one ever heard from his lips an oath, an obscene story, or a ribald jest.

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[1] Quoted from the biographical sketch by J M Da Costa M D LL D

He was distinguished for his hospitality. His home was open to all who had any claim upon his hospitable attentions. At his table were to be met guests, distinguished in the world of letters at home and abroad, associated with young physicians and medical students who had been commended to his favor. He was considerate and generous alike to all. The beauty of his character was never so finely displayed as in the circle of his family and congenial friends. They who were privileged to enter this circle are blessed with sweet remembrances which must now take the place of those social pleasures that death has interrupted.

The character of Professor Gross was full and round. It had no glaring defects. It was not angular or distorted. He had quick, strong impulses, but they were generally right, and he was not led astray by them if their tendency was otherwise. Under the great difficulties incident to his professional avocations, his industry enabled him to perform an immensity of literary work, but he never neglected the duties of his profession or the obligations incident to domestic and social relations. He was fond of amusements and rational conviviality, but his life affords no sanction of immoderate devotion to pleasure. He was temperate in all things without asceticism or fanaticism. What were his religious views I suspect his most intimate friends did not know, these he kept among the secrets of his thoughts and experience. It is certain that his mind was far removed from bigotry, and, in my belief, it is not less certain that he had faith and trust in a supreme, paternal Governor of human affairs. He had a frank, open nature. He was open-handed but not improvident. He was generous as regards his professional services whenever circumstances called for the exercise of generosity.

It was my privilege to see him repeatedly during the last days of his life. Feeble as he was, his cheerfulness, his inclination to humor, and his hospitable attentions did not leave him. He talked with interest of the meeting of the American Medical Association, which was near at hand, and of the International Congress which was to meet at Copenhagen in a few weeks. He expressed regret that he could not be present at these meetings. In answer to the question by his friend and former pupil, Professor Richardson, What message he wished to send to the members of the American Medical Association, he said: "Give them my love." He manifested pleasure in the announcement, shortly before his death, that the University of Edinburgh had conferred on him the degree of Doctor of Laws. He declared that he had no desire to outlive the capability of work and his usefulness. He died without much suffering and with all the devoted members of his family around his dying bed.

So passed away, having nearly reached the age of four score years, one whom all delighted to honor. His physical strength was not greatly impaired up to a short time before his death, and his mental faculties were maintained to the last. We shall see him no more in this world, but his life-work and his character, death cannot destroy, these remain a priceless legacy to the profession which he loved, and which will ever hold his memory in grateful remembrance.

BOOK REVIEWS

INJURIES OF THE SPINE AND SPINAL CORD WITHOUT APPARENT MECHANICAL LESION, AND NERVOUS SHOCK, IN THEIR SURGICAL AND MEDICO-LEGAL ASPECTS. By HERBERT W. PAGE, M.A., M.C., Cantab., F.R.C.S. England. Surgeon to and Lecturer on Surgery at St. Mary's Hospital, etc. Second Edition, 8vo, pp. xii, 397. Philadelphia: P. Blakiston, Son & Co., 1885.

The Boylston Prize Essay, for 1881, was a dissertation on "Injuries of the Back, without Apparent Mechanical Lesion, in their Surgical and Medico legal Aspects," by Mr. Herbert Page. This essay was formed of parts of the present volume, as was stated in the first edition, which appeared in this country in 1883. In its main features the second edition differs but little from the first, although it has been quite thoroughly revised.

Until the appearance of this book the only publication treating of injuries of the nervous system due to railway shock, was the small volume first published in 1866, by Mr. Erichsen, and which was subsequently enlarged under the title of "Concussion of the Spine." Mr. Erichsen's book was long considered authoritative work on this subject, but the general opinion after the appearance of the first edition of Mr. Page's book was, that it would supersede the former. This opinion seems to have been justified by the demand for this book, and by the frequency with which it has been quoted and referred to since it was published. It is the first work of the kind which has treated of the subject both from the standpoint of the surgeon and of the medical jurist. For quite a number of years the author has been surgeon to the London and Northwestern Railway, and has had abundant opportunity for gathering clinical material for a work of this kind. But he asserts that his connection with that line is not such but that he can write with a spirit of perfect fairness on this subject, and those who will read the book will see that it is characterized throughout by fairness and justness to all parties, which gives an additional interest and value to it.

The frequency with which "spinal injury" is the plaintiff in suits against railway companies has been often remarked upon, both in this country and in Europe. Doubtless when a person has been severely shaken in an accident he thinks that he should have some compensation for the fright (otherwise called nervous shock), and if he happens to feel a pain in a limb or in his back within the following two or three months, his spirits revive and he comes into court with a fifty-thousand-dollar case of locomotor ataxia And it is singular that these are the cases of locomotor ataxia which recover soonest — some almost immediately — after their injured spines have been soothed by large damages, or by nothing at all This disease might prove very much less formidable could we in some way apply this unpharmaceutical remedy in all cases

The first chapter of this book is devoted to the subject of "Concussion of the Spinal Cord," in which are discussed the gravity of injuries to the spinal cord, the supposed effect of railway collisions upon the cord, Brodie's classification of injuries to the cord, intraspinal hæmorrhage, cases of concussion lesion, by Brodie, Abercrombie, Bell, Mayo, and others, and the danger of spinal cord lesions The second section of the first chapter deals with the analogy between concussion of the brain and concussion of the spinal cord, lesions in brain concussion, the views thereon and cases of Hewett and Hutchinson, classification of concussion injuries of the brain, the physical surroundings of the brain and spinal cord, views of Savory, and cases of concussion of the cord by Abercrombie, Liddell, and others, with conclusions And in this chapter we have to record our first objection to this book, not an objection to the book as a whole, but to a piece of what may be called bad judgment In quoting from Boyer, giving the report of a case of spinal injury, Mr Page has given the report in the original French — more than a page, now while the greater number of the readers of the book are probably so familiar with that language as to read it with ease, there will be a respectable minority who cannot read it at all Further than this, the sandwiching of a foreign language in any book, for any purpose, is bad taste, unless a translation is given in a note — though it is more elegant to place the original in the foot note

In this first chapter the author endeavors to show upon anatomical grounds that the cord shares but little of the risk of the brain to suffer lesions from blows directly inflicted upon its bony covering In the many recorded cases the physical signs of injury to the spinal column are absent during life, nevertheless, the cord lesion is so usually fatal that an opportunity for *post-mortem* determination of the amount of damage is rarely long delayed "We have further sought to inquire into the supposed analogy between concussion of the brain and concussion of the spinal cord, and have found that even if the analogy does in any case hold strictly good it is only in the very rarest instances that it can unequivocally be maintained And this fact is very prominent, that there is no evidence to show that the spinal cord can receive concussive injury without the manifestation of undoubted symptoms, or that the cord itself can meet with strictural traumatic lesion without the appearance of those symptoms immediately upon the injury The evidence collected is singularly important, for if the spinal cord be, as we believe, so free from risk of concussion injury, owing to its unrivalled security in the spinal canal, it seems highly improbable that it should be especially liable to suffer injury in any single kind of accident such as railway collisions, no matter how trivial they may be, and even though no damage has been inflicted on or near the spinal column The improbability seems great, but far different might be the reality", and the author therefore directs attention, in the next chapter, to the evidence which is presented "as to the liability of the cord and its coverings to suffer injury in the collisions which are frequent forms of accident in the present day, and the results of which become so often the subjects of medico-legal inquiry "

The second chapter is chiefly devoted to a consideration of Mr Erichsen's work on 'Concussion of the Spine " He first very justly condemns the phrase "Concussion of the Spine," an expression so indefinite and unscientific that it is scarcely worth the while to enter into further particulars concerning it To summarize the author's views as expressed in this chapter, we cannot do better than to quote the closing paragraph "A study both of concussion of the spinal cord and of 'concussion of the spine,' be they the same thing or be they something different, makes it very clear that lesion of the spinal cord from simple concussion blow is very rare indeed and that the existence of meningo-myelitis—an easily recognized pathological condition—as a remote or early consequence of some vibratory effect upon the cord, still lacks the solid basis of established observation " He shows in a very conclusive manner that the popular idea that the effects of a railway collision upon the cord or upon the spinal column are more usually remote is entirely erroneous

The remaining chapters of the book are devoted to the consideration of the common spinal injuries of railway collisions, shock to the nervous system, functional or neuromimetic disorders, malingering, and a chapter of concluding remarks In this last chapter the author gives many suggestions which may prove of great value to the medical witness, and some that might be read with profit by our legal brethren

Mr Page has given us the second edition of a book which was recognized as an authority on the appearance of the first edition The criticisms of that first edition were generally commendatory —and just The second edition has been called for by the profession, in contradistinction to having been forced on the public by the publishers We will close with a word to the publishers Like all, or almost all books printed in England, the pages of this one are uncut This may seem a trifling matter for a quarrel, but everyone—

will admit that uncut pages are nothing more or less than a nuisance We have sometimes thought it possible that cutting machines were unknown in England, if such be the case we hope that American publishers who have work done in that country will lose no time in exporting a few machines for their imprints

MISCELLANEOUS

THE ILLINOIS STATE MEDICAL SOCIETY will hold its thirty fifth annual meeting in Springfield, beginning May 19 The following committees are expected to report

Standing Committees—Practical Medicine Norman Bridge, Chicago, C H Norred, Lincoln, J R Livingood, Rossville Surgery W A Byrd, Quincy, D A K Steele, Chicago, Cass Chenowith, Decatur Obstetrics C W Earle, Chicago, T D Washburn, Hillsboro, Anna S Adams, Peoria Gynæcology David Prince, Jacksonville, Sarah H Stevenson, Chicago, O B Will, Peoria Materia Medica and Therapeutics T M McIlvaine, Peoria, J F Todd, Chicago, Catherine Miller, Lincoln Ophthalmology and Otology W T Montgomery, Chicago, C R Park, Bloomington, Robert Tilley, Chicago Necrology E F Ingalls, Chicago, William Hill, Bloomington, M F Bassett, Quincy

Special Committees—Laryngology E F Ingalls, Chicago Oral Surgery J S Marshall, Chicago Pediatrics A F Rooney, Quincy Dermatology W J Maynard, Chicago Orthopedic Surgery C E Webster, Chicago Tetanus C Truesdale, Rock Island Insanity R J Patterson, Batavia Alcohol as a Therapeutic Agent M F Bassett, Quincy Effects of Malaria in Puerperal Cases H Judd, Galesburg Physiology A Wetmore, Waterloo Treatment of Epilepsy D R Brower, Chicago The Diagnostic Peculiarities of Malignant Growths Christian Fenger, Chicago Simple Renal Catarrh I N Danforth, Chicago Legislation for the Insane B M Griffith, Springfield, chairman, Walter Hay, Chicago, J L White, Bloomington, F B Haller, Vandalia, W A Haskell, Alton, E P Cook, Mendota, Wm Hill, Bloomington, A B Strong, Chicago Biographical Committee J H Hollister, chairman, Chicago, E P Cook, Mendota, E Ingals, Chicago, J F Curtis, Otterville, D E Foote, Belvidere, George W Jones, Danville, F B Haller, Vandalia, T F Worrell, Bloomington, Washington West, Belleville, Robt Boal, Peoria On the Influence of Appreciable Meteorological and Topographical Conditions on the Prevalence of Acute Diseases N S Davis, chairman, Chicago, J H Hollister, Chicago, J F Todd, Chicago, E P Cook, Mendota, G W Jones, Danville

The meetings of the society will be held in the Capitol Building, beginning on Tuesday, May 19, at 10 A M Railroads will return delegates and members of the society, who have paid full fare in coming to the meeting, for one-third fare, on presentation of a certificate, properly signed, which can be obtained at the time of registration

THE NEW YORK STATE MEDICAL ASSOCIATION, FIFTH DISTRICT BRANCH—The second special meeting of the Fifth District Branch will be held at the Morgan House, Poughkeepsie, at 2 30 P M, on Tuesday, May 19, 1885 The following papers will be read Three Cases of Ligation of the External Carotid (in two both vessels were tied simultaneously), by J D Bryant, M D, Diphtheria and its Treatment by Calomel, by S J Murray, M D, Hypertrophy of the Prostate Gland, by J G Porteous, M D, Treatment of Cerebral Hæmorrhage and Embolism by the Internal Use of Carbonate of Ammonia, by R C Van Wyck, M D, Report of a Case of Rheumatic Metastasis to the Brain, Ending Fatally, by C S Wood, M D

THE PENNSYLVANIA STATE MEDICAL SOCIETY will hold its thirty-sixth annual meeting in Scranton, on May 27, 28, and 29 The address in surgery will be delivered by Dr E A Wood, of Pittsburgh, in obstetrics, by Dr C A Rahter, of Harrisburg, in Hygiene, by Dr J G Richardson, of Philadelphia, in psychiatry, by Dr S S Schultz, of Danville, in medicine, by Dr E T Bruen, of Philadelphia, and in otology, by Dr Chas S Turnbull, of Philadelphia

PRELIMINARY EXAMINATIONS IN THE COLLEGE OF PHYSICIANS AND SURGEONS OF QUEBEC—Previous to admission to its classes at the opening of the session of 1885–6 the College of Physicians and Surgeons of Quebec will require a preliminary examination in Latin, French, English, belles lettres, history, geography, arithmetic, algebra, and geometry, with three electives Greek, physics, and philosophy

THE INTERNATIONAL SANITARY CONFERENCE—The President has appointed Dr George M Sternberg, U S A, to attend the meeting of the International Sanitary Conference in Rome, on May 15, as delegate from the United States

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U S ARMY, FROM APRIL 25, 1885 TO MAY 1 1885

Maj Chas C Byrne Surgeon, assigned to duty as attending surgeon at the Soldiers Home, D C, to take effect May 15 1885

Capt Calvin De Witt, Assistant Surgeon, upon being relieved by Surgeon Byrne, ordered to report to the Surgeon General of the Army (S O 94, A G O, April 25, 1885)

Capt Geo H Torney Assistant Surgeon U S Army, assigned to duty at Fort Monroe, Va (S O 87, Department East April 25, 1885)

Capt L W Crampton, Assistant Surgeon, assigned to duty as Post Surgeon, Fort Bridger, Wyo Ter

1st Lieut Wm. C Bourden, Assistant Surgeon ordered for duty at Fort Douglas, Utah Ter (S O 33, Department Platte, April 22 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N. S. DAVIS.
PUBLISHED WEEKLY
VOL IV CHICAGO, MAY 16, 1885 NO 20

THE ADDRESS IN SURGERY AND ANATOMY.

Delivered in General Session at the Thirty-sixth Annual Meeting of the American Medical Association

BY DUNCAN EVE, M D
OF NASHVILLE TENN
Professor of Surgery and Clinical Surgery in the Medical Department of the University of Tennessee Chairman of the Section on Surgery and Anatomy American Medical Association

MR PRESIDENT AND GENTLEMEN OF THE ASSOCIATION,—The Surgical Section of the American Medical Association has cause for warmest congratulation by reason of the large number of its members, their high attainments, their devotion to science, their well deserved fame and distinction, the rapid progress of this department, the wonderful enlargement of its field of thought and action, the great increase of its means and opportunities of usefulness, the splendor of its past achievements and the brilliant promise of its future conquests

The lights of the present and the shadows of its past history are necessary to a faithful portraiture of its true dimensions and real stature The very limitation of its sphere results in a clearer definition of its province It antedates the pyramids, and lingers with the Egyptian priesthood, who, upon sacred walls, transmitted to us their knowledge of operations and instruments, not unlike some of to-day

It was deified in the person of its Grecian disciples while temples rose and altars smoked in its worship With the birth of poetry its praises began, and Homeric verse pays it tribute It flowed in the same channel with all ancient knowledge—from Egypt to Greece, thence to the Seven Hills

While it suffered, in common with all other knowledge,obscuration and neglect, in the painful hiatus of human progress, yet so vital its genius, so necessary its life, and so inspiring its study and pursuit, that gleams of sunshine, though fitful, played upon the deep gloom, and it glowed and kindled with the earliest dawn of modern science and learning

Yet, up to the sixteenth century a fatal barrier opposed truly scientific progress, for how could truth be attained in that occupation whose province is to divide or unite tissues, separate whatever is dangerous or inconvenient, remove foreign bodies or those which have become such, arrest hæmorrhage, reduce inflammation, repair and correct deformities, restore lost tissue, etc , without a thorough knowledge of the human organism, and compass this knowledge without anatomy, whose relation to surgery is as light to the eye Italy blessed the world, and the name of Vesalius became immortal in recognition of the fact France participated in the glory through "the great king-honored, man loving, and God-serving chirurgeon," Ambroise Paré, but at the close of the sixteenth century Italy again moves to the front in the *Opera Chirurgica*, of Fabricius ab Aquapendente, thereafter appear Wiseman, in England, and hosts of names elsewhere, yet all upon the same and correct idea

This alone, however, is not sufficient, for to anatomy must be added physiology and pathology —the latter unattainable without a knowledge of the former

The eighteenth century was endowed by the profound attainments in anatomy and the brilliant ingenuity of its surgeons, the names of Pott and Hunter, of Scarpa and Bertrandi, of Petit and Bichat, of Theden and Richter, are indelibly inscribed upon the historic page The impetus received extends through the eighteenth century, while the nineteenth is ushered in with a blaze of glory For be it known that the age in which we live enriches the science with wealth which in comparison impoverishes all preceding centuries Sir Astley Cooper, Liston, Dupuytren, Lisfranc, Velpeau, Civiale have passed away, but others remain, and this country, by force of its genius, has achieved triumphs which the learning of Europe had failed to attain

The improvements of this age in surgery have thus been summarized discovery of anæsthetic agents, resections of bones at the joints, the preservation of the periosteum and consequent development of new bone, partial amputations of the foot, amputations at the hip joint, the cure of aneurisms by the ligation of arteries within the trunk and immediate at their departure from it, the excision of the whole of the upper or lower jaw, the operations for cleft or deficient velum palati, or palatin vault, opening of the air passages to avoid asphyxia, extirpation of the uterus, ovaries, and lower portion of the rectum, the antiseptic treatment of wounds, the introduction of silver and animal sutures, the process of remedying ununited fractures, the substitution of milder means for the trephine in all except the most serious cases, the improved treatment of ulcers and abscesses, the radical cure of hernia, the successful treatment of calculus, both by lithotomy and lithotrity, improvement in the treatment of strictures of the urethra, œsophagus, and rectum, the satisfactory treatment of malignant diseases, the restorative process in which the nose, lip, etc, are restored from adjacent tissues, and the great improvements in mechanical treatment of orthopedic affections

The contemplation of the history of surgery is indeed cheering It is wonderful what had been accomplished before anatomy was made an essential part of its study It shows its great value, its deep necessity and resistless fascination, indeed, it is astounding how so much could have been acquired, while the structure of the body was unknown It was truly an epoch when the study of anatomy became a part of surgical learning Thus for the first time the characteristics of a science were impressed upon it If the most beautiful machinery that ever addressed itself to motion was before you, with a motive power peculiar to itself, making vitality its essential active principle, a machinery involving sensation, conscious by this fact of its own injury, and rising higher still and attaining a manifestation unknown to any other form of existence with which we can be acquainted—*a thinking machine*, a structure which in the number of component parts, the variety of materials, their uses and adaptations, their mode of exhaustion and supply, of construction, destruction, and reproduction, and these all subject to every form of accident and injury, it would well enlist the highest energies and noblest faculties of the human mind and heart, and the results which have been accomplished are such as might have been anticipated

In studying what has been done during the past year we find it also consistent with the progress of surgical science

It has been characterized by the assemblage of most eminent minds in national and international conventions, where the most elaborate papers upon every pertinent subject have been submitted and discussed with a candor, ability, and love of truth that reflect honor upon the profession

No startling discoveries have been made, but everything acquired heretofore has been critically reviewed and tested, facts have been arranged and classified, experiments repeated and verified, and theories examined with an impartial spirit In a word, it has been an inventory, to employ a commercial phrase, of all that is now possessed by the profession The pen also has been most active, in books, journals and papers

To make mention of some of the most prominent

Prof Henry B Sands suggests a novel procedure for the relief of œsophageal strictures, by means of an operation (internal œsophagoomy) An instrument is employed similar in mechanism to certain urethrotomes, by which a division is made of the undilatable strictures The recommendation of his operation is supported by a successful case reported to the New York Surgical Society

Dr John H Packard performed lumbar colotomy for an imperforate rectum, in which death occurred in one hundred and thirty-seven days after the date of the operation Dr Packard intimates that he would perform inguinal colotomy, as affording better opportunities of success, as the risk would be counterbalanced by an easier access to the terminal part of the bowel

Dr George R Fowler reports two very interesting and successful cases of facial neuralgia, relieved by neurectotomy The first case was an exaggerated neuralgia of the frontal division of the ophthalmic nerve of several years' standing The operation somewhat different from Leinhart's, consists in making an incision along the upper margin of the left orbit—the supra-orbital nerve was traced back to a point where it and the supra-trochlea arise from the frontal nerve, beyond which point it was severed, also its branches dissected out and divided The second case was tic doloureux of only three months' standing A modification of Carnochan's operation was instituted, by making a curvilinear incision parallel, and a little below the inferior orbital margin The upper flap was raised and the branches of the inferior orbital nerve dissected out The bone was laid bare and a small Galt's trephine removed a disk of bone from the wall of the antrum A still smaller trephine was now made to puncture the posterior wall of the antrum, after which, by use of a small bone chisel, the infra-orbital canal was broken down, and finally section of the superior maxillary nerve, beyond a point where it joins Meckel's ganglion In both cases pain disappeared immediately after the operations

Dr F Lange suggests a new method of treating large bony cavities in the lower end of the femur of adults The method consists of securing a flap of soft parts to the bottom wall of the bone cavity, after its anterior wall had been removed, and its surface had been thoroughly refreshed and purified

Drs J H Musser and W W Keen report two new cases of cholecystotomy, and present a table of all hitherto reported cases In case first, there was a history of biliary concretion of five years' standing, jaundice for eight months, and symptoms of obstruction Dr Keen performed cholecystotomy and the patient recovered

In the second case there was gastro intestinal catarrh, followed by jaundice, both becoming chronic, with symptoms of internal suppuration Dr Keen also performed cholecystotomy, but the patient died in a short time

In the thirty-five cases enumerated in the table the gall bladder was not opened in four of the patients, therefore, strictly speaking, these latter are not examples of cholecystotomy

Dr Keen recommends if the diagnosis be fairly well established, an incision be made with strict antiseptic precautions over the centre of the tumor, and parallel to the free border of the ribs, three inches in length The gall bladder is now aspirated and a flattened scoop used to keep back the intestines and carry off fluids, being arranged at one end to serve as a conduit The gall bladder should now be incised to the extent of an inch, all discoverable concretions removed with forceps, and a fistula established by fastening the edges of the incised bladder to that of the abdominal wall

Owing to long continued jaundice disorganizing the blood, there is a marked hæmorrhagic tendency in a majority of these cases

Out of the whole number of cases reported only ten deaths occurred

Dr Henry Morris recommends the following procedure for the removal of impacted calculi in the ureter Having dilated the urethra in the female, or performed external urethrotomy in the male, the index finger of the left hand should be passed into the bladder If a hard fixed body should be felt in the situation of the opening of either ureter, a knife shaped like a gum lancet should be passed in, and the tissue covering the stone should be incised, a scoop being used to turn the calculus out of its bed, and to remove it

Dr Samuel W Smith proposes a woven-wire corset, instead of the plaster jacket for spinal affections, claiming that the latter causes bronchial trouble by cooling the body during the drying process of the plaster

Dr J Wiest reports a successful reduction after thirty-eight hours of a bilateral dislocation of the sixth cervical vertebra from the seventh, without fracture of the body of the vertebra

The experience in this country regarding "Rectal Etherization" has decidedly been adverse to employment, having caused death, to say nothing of ulceration resulting in the intestinal tract

One of the most prominent features in the past yearly progress of American surgery is the increased use of antiseptic methods and appliances To Dr L S Pilcher we are indebted for a most interesting and valuable paper on "Recent Advances in Methods of Wound Treatment" He urges the use of "aseptic instruments," that is, instruments so constructed as to leave no crevices or joints where impurities may find lodgment Another step he claims as an advance, is the use of "buried sutures," consisting of a series of catgut sutures applied to the deeper parts of an extensive wound, by which the layers of tissue, one after another, are apposed from the bottom of the wound upward, the sutures being absorbed during the process of healing Dr Pilcher also lays special stress upon the value, for dressings, of turf moss and ordinary sawdust disinfected with corrosive sublimate, and made permanently antiseptic with naphthaline

In connection with surgical literature during the past year, among the most notable additions may be mentioned two volumes of the "International Encyclopædia of Surgery," vols IV and V, a volume on the "Principles of Surgery," by the late Prof W H Van Buren, edited by Dr L A Stimson, a paper by Prof Moses Gunn on the "Philosophy of Manipulation in the Reduction of Hip and Shoulder Dislocations", a paper by Prof T M Markoe on "Sarcoma of Synovial Sheaths", a paper by Prof Roswell Park, on "Tuberculosis of Bones and Joints and Its Treatment by Ignipuncture," and a paper by Dr Frank Rockwell, on "Antiseptic Surgery in Private Practice"

It is gratifying to contemplate the thought and action of the closing surgical year It is full of promise for the future The profession has been husbanding its energies and disciplining its forces, gathering its strength, filling and replenishing its arsenal for the most glorious contest that the world ever saw, and the seeming repose was really active preparation for future struggles and more glorious victories All the achievements of the past will be but the alphabet of the science of the future

While the first century of American surgery accomplished so much, let us remember that among its many bright and shining lights—its stars of greater or lesser magnitude—its closing and most effective portion was illumined by one who stood far above his fellows, and who was permitted to sum up its details and accomplishments, as well as to make his impress on the initial portion of the second centennial period When this Association was in session but a short year ago, it members were saddened, their hearts bowed down, by the intelligence that the greatest of American surgeons had joined the innumerable caravan, and had "crossed the river to rest under the shade of the trees" After more than three score years and ten of a most honored and useful life, after making a greater impress upon the plastic field of surgery than was ever given to one man, after justly won and well merited honors at home and abroad, he was permitted to join the illustrious fathers of the profession he loved and honored so well, leaving throngs and hosts to lament and mourn his loss, and join in universal pæans of praise

And if it be not permitted for one to recross from the other side, may we not hope that the stimulus of his great name, the emulation of his most worthy example, the incitement of his untiring energy, the encouragement of his persistent labor, and the love for his fellow man that filled his warm and kind heart may pervade this Association, and more especially the section which knew him so well, and loved him as a father for so many years?

As he has said, our art as "practised at the present day, is entitled to the highest respect and admiration of the profession, and the most profound gratitude of mankind It has attained, if not its finality, certainly a wonderful degree of perfection, it has emerged out of chaos into order, and out of darkness into light, it has laid aside its farrago of instruments, and its fondness for blood, in a word, it has assumed the fair and stately proportions of a science, and little remains to be done to place it upon a firm and immutable basis, beyond its efforts to determine the best plans by which it seeks to accomplish its various purposes "[1]

Or may we not exclaim as he did just six years since, when the leading medical men of America were assembled to do him honor and reverence—"Oh! for a glance at the profession half a century hence, when man, enlightened and refined by education, and redeemed from the thraldom of ignorance and superstition, shall reflect more perfectly than he now does the image of his Maker!"[2]

ORIGINAL ARTICLES

PENINSULAR AND SUB-PENINSULAR AIR AND CLIMATES[3]

BY W C VAN BIBBER M D,
OF BALTIMORE, MD

Peninsulas have always been sought by mankind as favorite residences, and have been visited in winter by those living in cold, inland countries, as resorts for health Excluding the peninsulas of the Indian Ocean and those of the far north, the six great peninsulas of the earth are, Greece, Italy, Spain with Portugal, Florida, Central America, and Lower California There are many well known smaller peninsulas on the Mediterranean, in France and Italy, which have climates peculiar to themselves

The distinction to be observed between the words "air" and "climate" is this When speaking of air, only the qualities of the atmosphere are considered The word "climate" embraces an assemblage of many facts, of which the atmosphere is only one of the factors From its Greek derivation, climate literally means, the slope of the earth from the equator toward the pole It has been defined as the condition of a place, in relation to the various phenomena of the atmosphere, as temperature, moisture, etc, especially as these affect animal life, or man Mr Hume says "I mean those qualities of the *air* and climate which are supposed to work insensibly on the tone and habit of the body" Evidently he drew a proper distinction between the meaning of the two words

The climate of a peninsula derives one of its peculiarities from the fact that the heat of the land dries the air as it comes from the sea The peculiarity of a sub peninsular climate is the re-drying, or super-drying, of the sea air An illustration to explain this peculiar action upon air may be found in the expansive forces of steam and superheated steam the change caused by the re-drying of the air, on the sub-peninsula, corresponding to the augmented force of the superheated steam On account of this, and also for other causes, the air and climate of a smaller peninsula attached to a larger one or jutting off from it, often differs from that of its parent very materially, this difference corresponding, in a great measure, to the extent of the water surface separating it from the main land, and also to the quality and area of the land forming the lesser peninsula Such a fact as this is important, and has not heretofore been observed or utilized to the extent it deserves This is one of the reasons why, in peninsular study, two or more places in the same latitude may be found having quite different climates

With these definitions and facts before us, we can now compare the climate of Florida with those of Italy, Spain with Portugal, and other places upon the Mediterranean Sea

We have all heard of Pau, Pisa, Mentone, Monaco, Cannes, and other European resorts, and may be familiar with what has been said concerning the banks of the Nile, or Mexico, and Southern and Lower California, but none of these, it may be said without fear of contradiction, can compare with Florida as a peninsular climate, or as a land having peculiar attractions as a winter residence Indeed, it may with truth be said, that Florida now stands confessedly preëminent in this respect, before all other lands or peninsulas It has a different latitude from most of them, a different topography, and a different slope to the winter sun The Apennine Mountains, with their summits, snow capped in winter, extend through the centre of Italy, and cool the air blowing between the Adriatic and Mediterranean seas Contrary to this, the face of the land in Florida is almost level, having only a gentle rise, between ocean and gulf There is no obstruction to the pressure of the winds in summer or winter, and no sudden chilling of the air in winter by mountain heights or snows

A further study of the topography of the state shows that the St John's River, which in reality is a succession of lakes, divides the northern and middle part of it into two imperfect sub-peninsulas The settlements and improvements already made on either bank of this river are now highly esteemed for their climates, but the most desirable region, and the one destined to become the most celebrated for its winter climate, will be found on a large sub peninsula on its southwestern or gulf coast

Before alluding to this more particularly, however, a brief description of this truly wonderland, as a whole, may be interesting As to extent of surface, affording and offering attractions of many kinds on land and water, Florida is the largest of the United States, east of the Mississippi River. It has, in round numbers, about 35,000,000 of acres, and, including keys, lakes, rivers, and land-bound waters, it covers an area of nearly 60,000 square miles. It is 400 miles from north to south, an average of nearly 100 miles from ocean to gulf, and its northern boundary line of 375 miles gives it a long arm extending to the west. Beyond this, its own western arm, in the states of Alabama and Mississippi, there is a beautiful coast line on the Gulf of Mexico which should be considered when speaking of Florida as a part of its own climate. Here the surf is warm, and already at Mobile, Pas Christian, Pascagoula, Biloxi, and other places, extending as far as New Orleans, excellent accommodations for strangers and establishments for the relief of disease have been established.

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[1] Gross System of Surgery, 6th Edition, 1882 vol 1, p 481

[2] Complimentary Dinner given to Prof S D Gross by his medical friends etc 1879

[3] Read before the American Medical Association Thirty-sixth Annual Meeting, April 1885

It is not surprising that with these advantages, during the last twenty years, Florida has been visited by a vast number of persons, who have either settled upon its soil, or continue to resort to it annually. Within this period, the entire face of the country has been changed, as it were, by magic. From a wilderness of flowers, parts of it may now be called a cultivated garden. Its legislatures have fostered the building of railroads, have invited capital from abroad, and have so managed the affairs of the state that it can now be traversed in every direction with ease and pleasure. More than a hundred large hotels, and double this number of smaller ones, have been erected in well selected locations, and each one of them has some particular attraction. It is estimated that during the present winter it has been visited by more than eighty thousand strangers.

Physicians often recommend many of those who seek their advice to spend their winters in mild peninsular climates, simply for the pleasure of the life. But the diseased conditions which they think are manifestly benefited by a resort to them, may be divided into the non-progressive and the progressive diseases. By those which are non progressive, I mean diseased conditions which are produced by overwork, luxury, and overexcitement, and by the contaminated air of cities. The progressive diseases are of a different character and are the great outlets of human life.

Foremost among them is consumption. It is this disease which has filled both peninsular and high altitude hotels beyond all others, and will continue to do so. "Why do you persist in sending your patients, in the third stage of consumption, to Florida?" the physicians of that state ask of their northern brethren. They reply, "We do not always *send* them, they *will* go." In fact, there is an intuitive and common-sense desire among consumptives and their friends to escape from the winter storms of rigorous climates, and go where it is warm and pleasant, and who can blame them? For myself, as a physician, I have observed the effects of the climates of Colorado, Santa Fé, and other high altitudes of the Northwest, and also of Southern and Lower California and Florida. Two propositions are thus far, satisfactory and encouraging to me. First, that change of air sometimes permanently arrests the disease in question, in its first stage, and secondly, that a temperature between 70 degrees and 80 degrees F., where the invalid can be most of the time comfortable in the open air, is a valuable agent, provided it is good natural air which is obtained. Personally, if I had consumption, cancer, Bright's disease, chronic impoverishment of the blood, some of the heart or skin troubles, or any ailment which prevented me from buffeting my way, in the open air, against a gale of wind in a cold country, I would go, if possible, to a land that inclined to the winter sun by sloping well to the south, free from mountain snows, and had an even winter temperature, varying for the most part between 70 and 80 degrees F., and where can such a land be more easily reached than the favored peninsula of Florida?

But in order to judge clearly between the two as winter residences for invalids, the advantages of southern peninsulas should be contrasted with the rigors of northern inland climates. Let us contrast what has already been, and what will be hereafter said about the winter climate of southern peninsulas with this picture taken from the Fortnightly Review—Article "The Upper Engadine in Winter." St. Moritz and Davos are places recommended for a winter climate. Imagine the following scene for a consumptive, for whom it is recommended. "St. Moritz," says the writer, "is reached by six great Alpine routes. English people use the Julier and Maloja, since the others are either higher or more exposed to avalanches. The shortest time is made by the Julier, but this involves a twelve-hours drive in an open sledge. As a rule, only the first and last sledges have drivers. Along the narrow track formed in the snow, the procession walks or trots, according to the degree of the slope. The horses are accustomed to their work and follow their leader without the use of the reins. But if they chance to be fresh to their duties and leave the track, they will flounder more than knee-deep in the powdery snow, on which the occupants of the sledge will usually find themselves deposited without violence or hurt. As we go on, the sun, shining through the thin air, begins to burn fiercely, and we are glad to discard, one by one, many coverings which were necessary earlier in the day. This peeling process may continue until we feel surprised at the lightness of the covering required, but these rejected wraps will have to be donned again as evening advances.

"When lowering clouds discharge their burden of snow which, flung about in huge wreaths by a furious wind, blinds traveller, driver, and horses, and so covers up the track that the animals can scarcely make headway against the raging storm, then the worst that can happen is that the accumulation of drifts and the force of the storm may render it impossible to proceed, and sledge and horses will be rapidly snowed up Thus by slow and painful stages, the travellers [consumptives] may reach their haven of safety, to suffer for days in eyes and skin, if not more severely, from the terrible exposure Sunshine lasts from 10 45 A M to 3 P M on the shortest day, and these hours mark the limits within which most invalids find it desirable to remain out of doors There is often a difference of more than 50 degrees F between the temperature in sun and shade The sudden chill which accompanies sundown is remarkable Except when moonlight tobogganing is indulged in, it is not usual for people to go out walking in the evening" From this example it is plain that the course marked out and followed by the fashionable "fads" of the present day is not to be accounted for, but it is common sense to suppose that this sort of thing for consumptives cannot last

Compare this picture, which tempted quotation from its vividness, with the climate of southern peninsulas, where the air in winter is generally mild In Florida, especially upon its southwestern coast, the average winter temperature is about 68 degrees F, and during few winters are the extremes of the thermometer lower than 45 degrees F, or higher than 80 degrees These extremes, however, are very rare upon this coast, and of short duration Again, upon peninsulas, the scene of open water is a pleasant and refreshing change from that of ice-bound streams, bare trees and frozen ground The amusements of walking in the open air, hunting, riding, driving and boating, in no small degree contribute to health and pleasure, and the abundance of fruits, fresh vegetables, and fish are not found in northern inland countries It is not wonderful, therefore, that such advantages as these are sought after *They* indeed offer a haven of hope for invalids and a desirable winter home for all

On account of these facts, which have been repeatedly observed and extensively published by able writers, Florida is now attracting the attention of the European physicians and sanitarians The Russian, the German, the English, the French and Spanish physicians, as well as those in South America and the islands, are all becoming more and better acquainted with the peculiar attractions of Florida and, tired of those inferior climates which have been mentioned and which they have tried so long, and looking for something new and better, they are freely recommending this state as a health and pleasure resort If this is the drift of their inclinations, as it would appear to be from their writings and conversation, what is needed to attract invalids from these distant lands to Florida is that more and greater preparation be made for their accommodation This is a point of importance at this time, and the subject will amply repay a careful consideration

The scheme which will now be proposed is to project a "Health City" upon an enlarged scale, and to invite through the medical, the social, and scientific press, the nations of Europe and America to unite in its erection and improvement It would seem particularly fit that some such proposition should be made for Florida, since its history shows that at different periods it belonged successively to four of the present leading governments of the world, the last of whom expelled a nation of brave and strong warriors from its soil Then it was all war and dreadful massacre, now, in the 19th century, there is an opportunity offered for all these nations to join hands on the peaceful paths of sanitary science, and in cultivating the art of prolonging life

None of the places as they are at present improved in Florida can now fill this requirement There are many of them quite good, but all lack completeness for such a purpose as the one proposed The situations upon which most of them are built are more the result of circumstances than study A place ought now to be found, where such improvements may be erected, concerning which it could be said with pride, that pleasant climate and pure air and water are not all which the medical profession, with its collateral studies, can offer to the world on this unique peninsula

A distinguished physician in another country, as it were anticipating such a want here, has given the general outline for the building of a health city, which is particularly adapted to a warm climate Without such a city, as a sanitary and pleasure resort, Florida will never be complete

Upon one of the large sub peninsulas on the southwest coast of the state, a city may be built after the ideal model drawn by the master hand of Dr B W Richardson, of London, whose paper upon this subject was read before the Brighton meeting of the Social Science Association, in 1874

All the fire-proof materials to construct such a city are near at hand on this peninsula It can be erected with comparatively small cost Nothing is wanting but the determination to do it, and the mind of such an architect as Mr Chadwick, to whom Dr Richardson largely refers in his paper

That such a city will be built here in the near future, no one who has watched the progress of affairs of this kind in and out of the state, during the last few years, can doubt It should be done at once, and when finished, invalids and pleasure seekers, from all lands, will come to enjoy the delights of a winter climate, which, all things considered, can probably have no equal elsewhere

Where should such a city be built? Overlooking the deep Gulf of Mexico, with the broad waters of a beautiful bay nearly surrounding it, with but little now upon its sterile soil but the primal forest, there is a large sub peninsula, Point Pinellas, waiting the hand of improvement, as the larger peninsula from which it juts did but a few years ago It lies in latitude 27 degrees and 42 minutes, and contains, with its adjoining keys, about 160,000 acres of land No marsh surrounds its shores or rests upon its surface, the sweep of its beach is broad and graceful, stretching many miles, and may be improved to an imposing extent Its average winter temperature is 72 degrees, that its climate is peculiar, its natural products show, that its air is healthy, the ruddy appearance of its few inhabitants attests Those who have carefully surveyed the entire state, and have personally investigated this sub-peninsula and its surroundings think that it offers the finest climate in Florida

Here should be built such a city as Dr Richardson has outlined, or an improvement upon the Pullman city near Chicago, adapting such improvements to the purposes intended To give an idea of Dr Richardson's model, a quotation will be given from his paper, taking the liberty, however, to change the sequence, and alter the meaning of a few words of the original text

Dr Richardson says "Mr Chadwick has many times told us that he could build a city which would reduce any stated mortality, from fifty, or any number more, to five, or perhaps some number less, in the thousand annually I believe Mr Chadwick to be correct to the letter in this statement, and for that reason I have projected a city that shall show the lowest mortality

"Whatever disadvantage might spring in other places from a retention of water on the soil, is here met by the plan that is universally followed, of building every house on arches So, where in other towns there are areas, kitchens, and servants' offices, there are here subways through which the air flows freely, and down the inclines of which all currents of water are carried away

"The roofs of the houses are but slightly arched, and indeed, are all but flat They are covered with asphalt or tiling These roofs are barricaded around with palisades, are tastefully painted, and make excellent outdoor grounds for every house Flowers may be cultivated on them

"The floors are of heavy, hard wood, over which no carpet is ever laid They are kept bright and clean by the old-fashioned beeswax and turpentine, and the air is thus made fresh and ozonic by the process

"All pipes are conveyed along the subways, and enter each house from beneath Each house is complete within itself in all its arrangements, so that all those disfigurements called back premises are not required At a distance from the town, and connected with it by a telephone, are stables, the slaughter houses, and the public laundries and laboratories Each night, or early in the morning, all sewage and refuse matter is removed from the town in closed vans, and conveyed to a distance, where it is utilized by Mr Hope's plan"

Dr Richardson in his paper, projected a city for 100,000 inhabitants, living in 20,000 houses, and built upon 4,000 acres of land On this subject he says "In an artistic sense, it might have been better to have chosen a smaller town, or large village, for my description, but, as the great mortality of states is resident in cities, it is practically better to take the larger and less favored community"

This style of building, that is, upon arches, is not proposed for Florida without due deliberation It may not appear the best upon first presentation, but it will bear study The houses will be high and dry, with a free flow of air beneath them The floors should be from four to six inches thick The cost of arches, built with artificial stone, will be less than the cost of digging and laying pipes and sewers for drainage under ground There is no frost here, hence no fear of water freezing If once tried, its advantages will make it universal

If the situation which has been pointed out has all the advantages which are claimed for it, and some of which will now be given, then it is the proper place for an improvement which should have no equal, as its climate is matchless Dr Charles J Kenworthy, of Jacksonville, a well known authority upon the climatology of Florida, says "I have spent twenty-one winters in Florida, and being familiar with a large portion of the state, I have reason to believe that I am warranted in expressing an opinion From my knowledge of the state, I am convinced that Point Pinellas is eminently adapted as a location for a sanitarium The locality is strictly healthy, and it is accessible The west and northwest winds are robbed of their piercing and refrigerant effects by passing over the warm waters of the Gulf of Mexico The east and northeast winds are deprived of their harshness in passing over the peninsula of Florida Having made the climatology of Florida a special study, I am of the opinion that Point Pinellas is the situation *par excellence* for a sanitarium and a winter resort for tourists In addition to the sanitarium, I would recommend the erection of a hotel to accommodate tourists and sportsmen The harshness of the east and northeast winds on the Atlantic coast, the frequent rains and sudden atmospheric changes, so common in the northern portion of the state, and the liability to malarial diseases at certain points in the interior, would induce visitors to seek the equable, healthy and balmy climate of the Gulf coast if suitable accommodations could be secured"

Mr William C Chase, who has travelled extensively over the state, with a view of studying its climatology, says "Were I sent abroad to search for a haven of rest for tired man, where new life would come with every sun, and slumber full of sleep with every moon, I would select Point Pinellas, Florida It is the kindest spot, the most perfect paradise, more beautiful it could not be made Still, calm, and eloquent in every feature, it must be intended for some wise purpose in the economy of man's life Its Indian mounds show that it was selected by the original inhabitants for a populous settlement These mounds are not very common in Florida, and where found there are always excellent attractions Some of the mounds of Point Pinellas will measure from one hundred to three hundred feet in circumference, and thirty to ninety feet high—quite a hill, some of them A skeleton dug from one of them had a thigh bone five inches longer than that of a man living on the Point who was six feet tall The present inhabitants have none of the sallow, unhealthy complexions so common in the South, but are ruddy and clear, and as fine specimens of manhood as can be found anywhere Nowhere in Florida can be found such lakes and such good water It is a fact worthy of consideration, that the sapodillo, the mango, and many other *positively* tropical fruits and plants, grow and yield here, and living men gather and ship their yield, and depend upon their crops with as much certainty as the balance of Florida does upon the orange, cotton, and sugar cane One cannot too carefully note this fact "

Mr Theodore G Maltby, than whom there is no one more able to give an opinion upon this subject, says, in a letter dated from Point Pinellas "I will state my experience at Pinellas, and elsewhere in Florida Before coming here I paid an extended visit to the east coast, and visited most points of interest between St Augustine and Key West I was much pleased with the Indian River country as being the most desirable location for fruit growing I had then seen, but the insect annoyances that must always be endured deterred me from settling there The mosquitoes and sandflies were terrible We were compelled to wear head nets and gauntlet gloves at night in order to sleep, and from the sandflies there was no escape except by continual warfare, When I returned to Florida three years ago, I did not look at the east coast I had determined to go to Jamaica, but meeting Dr Branch in Tampa, who had lived many years in Florida, he told me that Pinellas was the most healthy place, and had the most desirable climate of any portion of Florida And I here state that if I should leave Pinellas, it would not be with the idea of finding a better location in the state Its nearly insular position, being almost surrounded by sea water, which ebbs and flows twice a day, filling every bay and bayou with warm water from the Gulf, and in summer with cool water, serve to keep an even temperature, and prevent great extremes of heat and cold, and giving us a climate where the mango, avacado pear, and other tropical fruits thrive and flourish, while a few miles north, and many miles south, these are almost yearly injured by frost Among the tropical fruits growing here is the cerica pay-payo, a fruit said to be exceedingly rich in pepsin I can speak from actual knowledge, that it is an excellent remedy for indigestion The mango fera (the mango), is also in bearing here It is one of the most magnificent trees of the tropics—there are trees growing on Pinellas having a circumference of branches of ninety-six feet, and not eight years old The persea gratissima (the avacado pear) is also a beautiful tree, some specimens here having attained a height of thirty-six feet Both fruits are highly esteemed Many other choice tropical fruits are to be found growing, among them the anona cherimolia, or cheremoya, pronounced by Wallace to be a spiritualized strawberry Abundance of oranges, limes, lemons, guavas, and bananas, and a few varieties of grapes " He also says the supply of game, fish, oysters, clams, scallops, etc, is abundant, and that excellent beaches for salt-water bathing are accessible from either bay or Gulf side, "so that at Pinellas, it is impossible to locate far from good bathing, fishing or hunting "

In a paper on "The Climatic Conditions of Florida," Judge J G Knapp, State Agent of Agriculture, divides the state into eight belts He says "The boundaries are not as sharp as latitudinal lines His divisions are the northwestern, the northern, north central, central, south central, southern, semi-tropical, and eighth, the tropical belts Of the central belt he says "The year possesses so equable a climate that, in the estimation of the inhabitants, the present season is always better than the past Summer and winter vary from each other rather by the months in the almanac, than by the markings of the thermometer " Of the south central belt he says "If we were charmed in the central, in the south central we will be enchanted Here frosts never freeze the orange, and it may remain on the parent tree until fully ripe In this belt lies the frostless Pinellas, and the lands between the waters of Tampa and Manatee Bays and the Gulf The nation's eye is turned thither, and the tread of the pioneer is heard He who will predict for this region a high rank among the incomparable belts of Florida, will not err "

After this evidence, it might be deemed unnecessary to say anything more about Florida as a winter resort, or concerning the excellence of the climate of Point Pinellas But the descriptions which have been written may bring disappointment to some persons, when they face the reality It is the intention that in this paper, at least, there shall be no misrepresentation, if it can be avoided

A gentleman of this city, now over sixty years of age, has spent much of his adult life in searching for a perfect climate His standard has been formed from reading Although his means and industry have permitted him to travel wherever literature invited, he is still in search of his ideal climate His case is not an uncommon one

Everyone who has travelled much in Florida knows that there are cold days there in every winter Fires have been seen and enjoyed from Fernandina to Tampa The new San Marco hotel in St Augustine is warmed by a steam apparatus The rulings of the thermometer are found to be variable everywhere sinking with the north, and rising with the south winds It is difficult to find the exact frost line Concerning this, which would not appear to be a very material point, there is a contention There are old inhabitants who say that at long periods, and at rare intervals, frosts appear in every part of the state, Pinellas included, and there are others who assert the contrary However, as a general truth, it is well known that there are elsewhere more equable climates than Florida can offer But with equal truth it can be said, that these climates are either too hot or too dry to be pleasant, or that they are comparatively inaccessible Rain and alternations of temperature according to meteorological laws go together It is by comparison only, and by taking all with all, that the winter climate of Florida has become celebrated, esteemed, and so much sought after

On the 20th of last February there was a stiff northeast breeze blowing on Point Pinellas, and overcoats were not uncomfortable to some persons who were there on that day At 6 A M the thermometer had been 46° F, the coldest day this year Yet the climate on this point is anomalous It is asserted by its inhabitants, admitted by its neighbors, proved by its flora, and published unchallenged by writers, that frost does not occur there It has been long and generally known as the "frostless Pinellas" If this is absolutely correct, or if a close approximation to it be assured, there must be some cause, or combination of causes, to account for this effect Frost occurs on the mainland in the same latitude And it even occurs one hundred miles further south

With all due diffidence, and subject hereafter to correction, the following reasons are suggested as a possible explanation for this remarkable fact Pinellas is a sub peninsula having a large land surface, which is for the most part, poor, high, dry, and hard, with here and there fertile spots scattered over its surface The north and east winds blowing to it are first warmed by passing over the main or larger peninsula, then again warmed by the Bay of Tampa, and yet again further warmed and re dried by the land surface of Pinellas The south, the west, and northwest winds are warmed by the Gulf of Mexico first, and pass over a chain of keys before reaching the "Point"

In the Gulf of Mexico, and beginning at a distance less than 100 miles to the west from these keys, is a basin 13,000 feet deep, and larger in extent than the entire state of Georgia It is called Sigsley's deep Prof Hilgard, Chief of the Coast and Geodetic Survey Bureau, has a model of it in his office at Washington

Has this immensely deep basin an effect upon the temperature of the surface water of the Gulf, which is 9 degrees F warmer than that in the Atlantic in the same latitude? The temperatures, in round numbers, are as follows The average temperature of the water flowing into the Gulf is 54° F The temperature at the bottom of the basin is 37° F The deep basin in the Gulf is drained by a channel through the straits of Florida into a deeper basin off the north coast of Porto Rico which is 37,000 feet deep, with a bottom temperature of 35° F The surface temperature of the Gulf water is 87° F Is it that the Gulf is landlocked, and its waters heated by the sun, or does the dynamic force of the water at these great depths expel its latent heat? Whoever wishes to theorize concerning this subject may do so The two facts, in order to show them more prominently, are here placed side by side, as they exist in nature—the frostless peninsula, and the basin, one is as true as the other, the latter has been proved by the soundings of the United States officers, the former is herewith given, with its proofs, for the future observation of the world If the health city, like to the one which Dr Richardson has imagined, or the one which the Pullman Company have made, is built here, no better or more accessible place can be found for the united enjoyment, mingling, and conference, of many nations That it was considered a choice and favored spot by the Indians, has already been said, of which there is no doubt The archæology of the United States shows, that as a rule, the best food-producing, and the healthiest situations, contain abundant evidences of the long residence of the early inhabitants The Indian mounds on Point Pinellas are by far the largest in the state, and the other evidences of an ancient populous settlement are equally plain

Mr Chase has told us that the food supply from the waters of Tampa Bay, from what he has heard, may not be excelled even by that of the Chesapeake Beds of oysters, clams, and other shell fish are as large, and as good in quality, as those found in Maryland and Virginia These oyster beds are now vast in extent, not having been much worked or drawn upon since the disturbance and expulsion of the Seminoles The variety of edible fish is large, and they are considered by many to be superior to those found in the Baltimore and Norfolk markets The pompano, the tarpon, blue fish, and red fish, the mackerel, mullet, and many others, are in great abundance The keys are lined with marine curiosities, and upon some of them are rookeries and wild game So that the feature of amusement and pleasure, so often wanting at health resorts, is here fully and happily supplied by nature

Upon the land, according to Mr Maltby, the oranges and other fruits are only excelled by those of Indian River, and again there are others who esteem the fruits of Pinellas above those of any other region of Florida The vegetables grown upon the Gulf coast are of a superior quality, fully equal to those found anywhere

The land of the sub-peninsula has an average height of about sixty feet, and commands a fine water prospect In the distance the famous Egmont Key and the smiling landscapes of the Manatee River country are to be seen

All these things, as well as its remarkable climate, point to it as a place for health and happy existence. Who will undertake its improvement? or, as it may be more aptly put, who will not work for its success? In the past there are at least two instances of city building which are encouraging. The great hero of antiquity sought a peninsula, upon which he brought his household gods and founded the city from whence sprung the Latin race and the walls of lofty Rome. The historic William Penn ran his plow through miles of wilderness, anticipating the wants of Philadelphia.

Guided by such illustrious precedents, if a health city is now, or ever will be, projected at Pinellas, the compass of it ought to be large, ample, and complete. If commenced now, prudence indeed may dictate that the first beginning would better be only on a scale commensurate with what present need demands. There may yet be difficulties in the way to baffle and check the work, that cannot be foreseen, therefore much will depend upon those into whose hands it may first fall.

Wise words, yet suggestive of success, are necessary here. The improvements which have been made in Florida already are evidently those of the age of hasty production. At the present time, when living is so luxurious, and luxury so contagious, the latest and best ideas in sanitary building must be attended to in order to give satisfaction. Opinions may differ as to the mode of building, but to arch building in a level country, none can deny a high order of advantages.

It has been the endeavor of the writer to call attention to the state of Florida as a winter resort for the restoration of the health of invalids, and for the pleasure of those who enjoy a warm winter climate and the sports and pastimes that it offers.

It has also endeavored to show how its accommodations may be improved for the benefit of other nations than the citizens of the United States. As to the situation where its "health city" should be built, I have tried to point out the place, and show its advantages.

During a recent visit to Florida, my attention was called to Point Pinellas, and I examined it as well and carefully as time and circumstances permitted. At its southern extremity, the land is shaped like a pyramid, and at its apex now stands a high palmetto tree which, viewed from a distance in any direction, as it rises out of the sand, presents a singular spectacle. Poetry might suggest that it was a beacon to this genial climate, but actually, around its roots on the point the sea sweeps over a broad and graceful beach, trending in beauty for miles on either side. From here, extending far up into the land toward the base of the pyramid, Health City should be erected.

As a result of that visit and examination, this paper is now offered to you, gentlemen, as a contribution to sanitary science.

THE TREATMENT OF CARBUNCLE WITHOUT INCISION.[1]

BY L. DUNCAN BULKLEY, A.M., M.D.,

OF NEW YORK.

A recent severe and somewhat striking case of carbuncle treated without incision has recalled a number of cases similarly treated, which excited some little interest among physicians who had watched the cases at my clinics and elsewhere, and has suggested the propriety of presenting the subject on this occasion. While the avoidance of a cutting operation in carbuncle is by no means a new suggestion, I feel sure from my experience in and intercourse with the profession, that the far more general practice is to make the free incisions so commonly recommended in many text books, and that the plan here advocated differs in many respects from that usually employed. I will first present in brief the case referred to.

Judge ——— aged 56, a large, florid gentleman, with delicate skin, first came under treatment for a very moderate amount of eczema upon the left leg and foot, which had existed to a greater or less degree there and elsewhere for five or six years. He had generally enjoyed good health, but stated that he had had diabetes for some time, in varying degree, he had not slept well since a period of nervous exhaustion several years previously. He was an excessive smoker. The eczema yielded remarkably well and quickly to an alkaline tonic, and an ointment of camphor, bismuth, and white precipitate.

Six weeks after his first visit he returned complaining of pain in the back of the neck on the right side, and on examination a red, hard, boggy mass was found, between an inch and a half and two inches in diameter, in either direction. This was moderately elevated, was apparently an inch in thickness, and on the surface were several small pustular points, it had existed several days before his visit. He was given quarter grain sulphide of calcium pills, gelatine coated, one of which was to be taken every two hours, irrespective of meals. Locally he was directed to keep the entire surface, and over an area of nearly three inches, covered with lint, with the following ointment spread very thickly on the woolly side.

℞ Ext. Ergotæ fld. ʒij
Zinci Oxidi ʒj
Unguent. Aquæ Rosæ ℥ij M.

This dressing was to be renewed twice daily, or oftener if there was much discomfort.

Three days later he called at the office, with the parts very thoroughly covered with the dressing, the boggy mass had increased in size, and was fully three inches in diameter, and the pustular openings, four in number, were more apparent and discharged some pus, in the largest of these, in the centre of the mass, a small portion of slough was seen. He had had considerable dull heavy pain the night of the visit, but the ointment was very comfortable, and gave much relief when it was freshly applied His pulse was 90 and of medium strength, the tongue was rather white and coated, and the bowels had been constipated but had since acted well He was directed to continue the granules of sulphide of calcium every two hours, and the following mixture was given

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[1] Read in the Section on Practice of Medicine, Materia Medica, and Physiology, April 28, 1885.

℞ Magnesiæ Sulphatis ʒvj
Ferri Sulphat ʒj
Acidi Sulph dil ʒiij
Syr Zinzib ℥j
Aquæ ad ℥iij M

Take one teaspoonful after eating, three times daily, through a tube

Three days later he again called at the office, the mass had increased still in size, and measured nearly four inches transversely, there were now five openings, the central one of some size, from which a larger amount of pus escaped He had had some pain, but had been down town daily, attending to his business, although the nights were somewhat restless His pulse was then 78 and of good strength, and the temperature beneath the tongue was 100°8 The examination of the urine since the previous visit showed a specific gravity of 1 026 in the morning specimen, and 1 033 in that passed at night, in both there were amorphous urates and a trace of albumen, and in the night specimen there was a considerable amount of sugar The treatment was continued, with the addition of ten grain Dover powders, to be taken as required for sleep Locally the ointment was still applied

Two days later, or eight days from the first day of treatment, the record was made that much of the hardness of the carbuncular mass had gone, that the area of the mass had diminished to three inches in diameter, and that pus of a healthy character could be pressed in some quantity from the central opening, which was about one third of an inch in diameter, partially occluded by a grayish slough He had slept well, taking three powders the night of visit, but none since The treatment had been carried out faithfully in every particular, he had gone to his business daily

Three days later all inflammatory appearance and soreness had gone from the mass, which was, however, still somewhat hard over an area of an inch and a half to two inches, pus exuded from the openings, of a thick, healthy character As the bowels were a little constipated an extra dose of the magnesia and iron mixture was given in a tumbler-full of hot water, before breakfast Some boil-like masses which had formed upon the thighs had dried up, and he was feeling in excellent health and spirits

His next visit was one week later, or eighteen days from the first visit Three days previously a slough had come out of the central opening, nearly an inch in length, following which had come quite a gush of rather watery pus, as though it had been corked up within The carbuncular mass had almost disappeared, and at the time of the visit there was scarcely any hardness, but some redness remained, with a little watery discharge from two small openings Ten days later the only trace of the carbuncle was a small scar left by the central opening, perhaps a third of an inch in diameter, and a little general redness of the neck

During this previous week he had been passing a considerable amount of urine, about three pints during the night, and as much during the day The morning specimen stood at 1 035, and the evening at 1 038 The morning specimen contained a considerable quantity of uric acid in large crystals, and abundance of oxalate of lime, the evening specimen had a trace of albumen Both specimens contained sugar in abundance, the morning specimen between three and four per cent, and that passed at night, at least five per cent

We have here the history of a carbuncle of fully an average size and severity, in an elderly subject with pronounced diabetes mellitus, running a comparatively short course, giving comparatively little constitutional disturbance, and not interfering with the daily attention to business During the entire treatment there was no surgical interference, other than the slightest pressure occasionally, simply to learn of the amount of pus present, and not to evacuate it The inflammatory process terminated in the production of openings through the skin which were sufficient to allow the escape of the pus, and the slough which formed was largely dissolved, and but a single mass remained, which escaped spontaneously through an opening hardly half an inch wide

The treatment employed was that which I have followed repeatedly, for several years past, and, as far as I can possibly recall, with uniform success Modifications may be required for particular cases but in the main the principles of treatment are the same, and may be briefly detailed

Locally I strongly object to warm applications, such as poultices, and have repeatedly replaced them by that above mentioned, with the greatest relief to the patient From the first I order the application of an ointment, spread very thickly upon the woolly side of lint, the layer of ointment should be a third of an inch at least in thickness, and should not be pressed too hard upon the part It is often desirable to place a layer of absorbent cotton outside the lint, and beneath the outside wrap, to make a softer dressing, and to take up any pressure or blow upon the part This dressing is to be continued from the beginning to the end, being renewed as often as comfort or cleanliness demands

In regard to the constitution of the ointment, I regard the ergot as an important element, and in certain cases where it was desirable to use it in a greater proportion in the ointment, I have prescribed the solid extract in place of the fluid, as used in this case The zinc I believe has also somewhat of an astringent effect, and the rose ointment I regard as superior to ordinary or benzoated ointment, as being much more soothing Sometimes the heat of the part will be so great as to cause the ointment to melt away rapidly, it may then be made more solid with a greater proportion of white wax, or with the addition of diachylon ointment

The internal treatment employed in this case was also that which I consider to be of importance in this condition There can be no question in regard to the power of sulphide of calcium in checking suppuration, and its power is often very strikingly manifested in carbuncles, one sixth or one-quarter of a grain, given every two hours, is a very valuable aid in their treatment, but the article must be good and efficient, for there is danger lest an inert preparation be employed When the drug is exposed to the air it changes into the sulphate of lime, or gypsum, which is valueless It is best therefore, always to use it in gelatine-coated pills, and these should be frequently tested by cracking them in the mouth

The mixture of sulphate of magnesia, iron, and sulphuric acid is also important, as I believe, both for its tonic and refrigerant effects upon the skin, and also probably because of the increased amount of sulphur thus introduced in an assimilable form It acts somewhat as a laxative, and its dose may be increased as required, taken in hot water before breakfast, it generally acts on the bowels very effectually

It will be seen in this case that no specially supporting treatment was given, the patient was directed to take good, nourishing food, and no stimulants I am convinced that stimulants would better be avoided when possible, though, of course, in special cases they may be absolutely demanded in order to support life where there is great sloughing and suppuration I will not occupy time with any extended consideration of the subject of carbuncle and its treatment as presented in literature, as the matter is familiar to all Many plans of treatment have been suggested, most of them, however, looking in the same direction, namely, toward giving artificial relief to the distended tissues, by incisions caustic openings, cupping, etc Some have urged pressure, and various counter-irritants have been suggested, but I can find no mention of such a plan as here presented, of a soothing and astringent ointment being applied from first to last

In recalling earlier cases in which I had practised free crucial incision, as commonly advised, with subsequent poulticing, and the large slough often formed, with its slow healing and subsequent scarring, together with the attendant pain and discomfort, and comparing them with later cases, treated as here detailed, I am more than convinced that incision should be avoided if possible I feel confident that absorption frequently takes place through the wounded blood vessels and lymphatics, often inducing blood changes, which does not occur when nature makes the opening, sealing the vessels as it proceeds

The points of importance in the treatment of carbuncle, as here advocated, may be summed up as follows

1 The very careful avoidance of all unnecessary irritation of the inflamed surface, as by friction, pressure, handling, squeezing, etc , both during the early and later stages

2 The avoidance of all warm and moist applications and dressings, such as poultices, etc, from the first to the last

3 The avoidance of incision, the entire process of opening and discharge of the pus and slough being left to nature

4 The avoidance of stimulants, except in cases absolutely necessary to sustain life and strength

5 The perfect protection of the inflamed part, from first to last, by means of an ointment (preferably one containing ergot and zinc) thickly spread upon lint and changed as often as comfort and cleanliness require

6 The administration from the first of sulphide of calcium in small doses, every two hours, great care being taken to secure an active and strong article, that in gelatine coated pills being the best

7 The support of the system, not by stimulant food and medicine, but by securing a healthy performance of the functions of the system, with nutritious and healthful food with fresh air, and every agency which can aid to this end

8 The remedies required are an occasional laxative, a slight sedative, such as Dover's powder, at times, to procure sleep, and a refrigerant and tonic, such as is found in a mixture of sulphate of magnesia, sulphate of iron, and sulphuric acid

The advantages observed to follow this line of treatment may be briefly stated

1 A comparatively short duration of the entire process

2 A comparatively small amount of pain

3 A comparatively small amount of scarring

4 The avoidance of a surgical operation

5 The avoidance of detention in bed

In conclusion I would add, however, that the plan of treatment here advocated is not put forth as that which will invariably be successful, although in my hands it has yielded infinitely better results than any other The duration of all the cases has been comparatively short—in the case here detailed it was hardly three weeks from beginning to end Dr Moore, in Ashurst's surgery, states that the average time of healing in thirty-five cases, in St Bartholomew's Hospital, was about seven weeks, while several months were sometimes required where the destruction of tissue was large Certainly the pain and discomfort attending the cases treated on the plan here proposed has been very slight compared to that in others which I have treated by other methods I shall look with interest for reports from others who may give trial to this plan of treatment

Dr James F Hibberd, of Richmond, Indiana, cordially indorsed the very valuable paper which had just been read He formerly treated his patients with all the approved surgical measures recommended for carbuncle, but for more than twenty years he had made no incisions, crucial or otherwise, into a carbuncle He had also abolished poultices whenever he was allowed to do so Friends generally believe, however, in poultices, and each one of the family has his favorite one to advocate About a year ago, Dr Hibberd was treating a patient who had one large carbuncle on the back of his neck and two small ones near it It occurred to him to apply oleate of morphia in the hope of mitigating the pain during the further development The oleate was applied by gentle friction every three hours Patient returned in forty-eight hours with great improvement and diminution of pain In four or five days the pain was all gone, and recovery took place without any appearance of suppuration, or breaking of the skin A small lump alone marked the original seat of trouble This case was followed by several others, which were treated in the same manner and with the same result

Dr Williams, of Nashville, testified to his success in treating carbuncle without incision He gave one patient half a gallon of whiskey per day No perceptible effect from the whiskey was observed by the patient until the carbuncle became better, when he perceived the influence of the liquor

Dr J V Shoemaker, of Philadelphia, has used the following for external application

℞ Naphthol gr x
Ext of arnica ʒss
Oleate of lead ℥iij M

This produces a very soothing effect He has failed to obtain such good results with the alkaloid oleates, as have been reported by other observers

Dr Savage, of Jacksonville, surrounds every carbuncle with a zone of cantharidal collodion for from one-half to one inch in width, this draws a blister and relieves pain He makes a small incision, also, if pus has formed In one case he applied a cantharidal plaster over the whole tumor and extending beyond it, with excellent results He gives calcium sulphide internally, a quarter of a grain, four times daily

In closing the discussion, Dr Bulkley said that he never opens a carbuncle, even when it is full of pus, as shown by fluctuation He leaves it to nature to supply a free outlet He thinks that an incision leads to absorption of purulent material and blood poisoning

MEDICAL PROGRESS.

Incision and Drainage in Hepatic Abscess—Mr G W Ridley reports the case of a sailor, suffering with abscess of the liver, who came under the care of Mr Crisp He had already been aspirated once, and about a pint of pus was drawn off Mr Crisp made a free incision, passed a director into the abscess-cavity, the tissues over the most prominent part of the fluctuating mass were freely divided, and more than a pint of chocolate-colored matter was evacuated A very large drainage tube was then introduced, which penetrated to a depth of about five inches, and a dressing of oakum was applied The discharge was very profuse at first, and it was necessary to change the dressings twice a day for the first three days, at each dressing the cavity was washed out with a solution of boracic acid After this the discharge lessened considerably, and the wound was dressed once a day At the end of a week the patient was allowed to get up, and in four weeks from the date of the operation the wound had entirely healed, and the patient was discharged cured—*British Medical Journal*, March 7, 1887

Carbolic Acid in Gastric Disorders—Dr Spencer Smyth writes, in the *British Medical Journal*, of April 18, 1885, that he has been in the habit for the past three years of giving carbolic acid, in grain doses, three times daily, for indigestion accompanied by constant acid eructations with pain and vomiting He has also prescribed it in sea-sickness, and in the vomiting of pregnancy, with good results It may be given with opiates when there is much gastrodynia, and after meals, also with bismuth, nux vomica, etc, and in cases manifesting gastric ulcer Patients suffering with flatulence have derived considerable benefit from its use, it being more readily taken than charcoal

The Orange as a Galactagogue—A correspondent of the *North Carolina Medical Journal*, of April, 1885, reports an interesting case in which the secretion of milk was greatly stimulated by eating oranges To test the effect, the fruit was omitted for a few days, when the secretion ceased It was soon brought on, however, by a return to this fruit diet If at any time the flow be not free, one or two oranges will increase it very abundantly in an hour or two Previous to using the oranges the patient gave no milk, and the child was fed artificially

Gangrene of Jejunum after Compression of Aortic Aneurism—This case was reported at the meeting of the Royal Medical and Chirurgical Society, on April 14 Digital compression was kept up for four hours and three quarters The aneurism was cured, but the patient died on the eleventh day from gangrene of the jejunum —*British Medical Journal*, April 18, 1885

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer s full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

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Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, MAY 16, 1885

VOLUNTARY ACCELERATION OF THE CARDIAC BEATS

TARCHANOFF has recently had an opportunity of studying in detail the phenomena of the cardiac and peripheral circulation on a very interesting subject, Eugène Salomé, a student of medicine in St Petersburg This young man possesses the remarkable power of accelerating the beats of his heart to a marked degree by a simple effort of the will, it is sufficient that he shall *will* that the beats be quickened to produce the phenomenon, it cannot in any way be attributed to an indirect influence, either of the respiration or from muscular movements, or to any other cause He has always had a remarkable power over the muscular movements of his body, moving his ears at pleasure, or flexing the third phalanx of any of his fingers without apparent difficulty

Tarchanoff's experimental researches into this curious case are recorded in the *Archiv fur die gesammte Physiologie*, Bd xxxv, 109 *et seq* For the purposes of his study he used Marey's pneumograph to record the respiratory movements, and the Mosso-Franck plethysmograph to record the number of cardiac pulsations and the state of the peripheral circulation, while the Marcel-Desprez electric signal indicated all voluntary movements, and the time was marked by the usual chronometer The tracings thus obtained showed only insignificant modifications of the respiratory rhythm during an effort of the will, but the number of the cardiac pulsations was very much increased, going from 96 to 123, from 70 to 105, and from 93 to 120 At the same time the plethysmograph attached to the foot showed a manifest diminution of the size of that member, which, in the opinion of the experimenter, may have been due to a peripheral and local constriction of the vessels, or to a diminution in the blood contents of the vessels, of cardiac origin

In order to decide as to the true cause of this diminution, the experimenter measured the arterial tension in the radial artery by means of von Basch's sphygmomanometer During the period of repose the pulse being, for example, 76, the pressure oscillated between 105 and 110 mm of mercury But during the period of voluntary acceleration, the pulse went up to 110, and the arterial pressure gradually rose from 110 to 112, 115, 118, and 120 mm of mercury, and remained for several minutes at this height after complete cessation of the voluntary accelerating power The pulse fell to 76, but the high arterial tension continued for five minutes The diminution in the size of the foot could not, therefore, be attributed to diminished arterial tension, and should be referred to a peripheral contraction of the vessels

This increase in the arterial tension appears to be due principally to the vaso-motor action indicated by the plethysmographic curve, and not to the acceleration of the cardiac rhythm The diminution in the size of the foot and the contraction of its vessels go through the same phases as the increase in the blood pressure the fall of the plethysmographic curve is seen for several minutes after the cessation of the voluntary acceleration of the pulsations, and disappears during the rise in the arterial tension There is then no doubt that the act of the will which accelerates the beats of the heart causes at the same time an excitation of the vaso-constrictor centres of the extremities, and that the effect of this excitation persists for a certain length of time after the cessation of the voluntary effort and of the cardiac acceleration

Just here Tarchanoff seems to have fallen into the error of more than one distinguished clinician Marey has shown, and other experimenters have confirmed his observations, that an increase in arterial pressure causes a slowing and not an acceleration of the cardiac pulsations hence his conclusion that the acceleration of the cardiac beats is due to an increase in the arterial tension is necessarily wrong It is very well known that Schapiro Friedmann and Thomayer have shown that the arterial tension is increased in horizontal decubitus, and decreased in the upright position, while the increase and decrease of the heart beats are directly the reverse.

The constriction of the vessels of the foot was accompanied by a similar constriction of the vessels of the hand, as was shown by thermometric measurements, the temperature fell 1° or 2° C., while there was at the same time a slight elevation of the facial temperature, vaso-motor phenomena similar to those which accompany any violent nervous excitation—contraction of the peripheral vessels coinciding with a tendency toward congestion of the vessels of the head. The vaso-motor system of this interesting subject also showed an exaggerated impressibility. Tarchanoff enumerates some of the influences which diminish this extraordinary power possessed by M. Salomé: these are muscular and cerebral fatigue, sexual excess, hot drinks, a long Russian bath, insomnia, the abuse of tobacco, and the repetition of the act several times at short intervals. The administration of liquor potassæ arsenitis increased his power over his heart. Professor Botkin, who made a thorough physical examination of the subject, found that the beat was feeble during the period of acceleration. The sphygmographic tracings taken from M. Salome show a manifest enfeeblement of the cardiac pulsations, and the dicrotism and tricrotism of the pulse are more marked during the acceleration. All the characteristics of the sphygmographic tracings were similar, in every respect, to those taken from a person who has been for some time in a Russian bath, and the number and force of the cardiac pulsations under the influence of a high temperature correspond exactly to the phenomena seen in this case. But the circulatory phenomena observed in this case presented none of the peculiarities which characterize the moderating action of the pneumogastric, or the suspension of its inhibiting power. It seems probable, therefore, that the cerebral hemispheres of this subject act directly upon the cerebellar centres of cardiac acceleration, and on the vaso-motor centres.

OFFICIAL RECORD OF THE PROCEEDINGS OF THE THIRTY SIXTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

We have given a large amount of space in the present number of the JOURNAL to the record of proceedings of the recent meeting of the Medical Association in New Orleans, as furnished by the Permanent Secretary.

We have thought it best to publish the whole in one number of the JOURNAL because it would be much more convenient for reference, and we have further added to its value and convenience for this purpose, by giving the postoffice address of the officers of the Association, and of each of the Sections, instead of simply giving the states in which they belong, as furnished by the Secretary. For the same purpose, we have also added the postoffice address of each of the members of the committee appointed to act with the original Committee on the Organization of the International Medical Congress of 1887—except the member from Dakota, whose residence we could not find.

Patience.—Our readers must exercise a little of this Christian virtue in relation to the tardy appearance of the JOURNAL. As we have before stated, a few weeks since the printing office in which the JOURNAL had been printed was pretty effectually consumed by fire. And, although the work on the JOURNAL was speedily resumed in another printing establishment, yet an important amount of both materials and time had been lost, and since that time we have been compelled to mail each number one or two days after its date. We have the strongest assurances that this evil will be wholly remedied soon.

THE ROLE OF CARBONIC ACID IN ASPHYXIA.

On October 11, 1884, M. Brown-Sequard reported to the Societé de Biologie, that he had concluded from a number of experiments that asphyxia depends only on the inhibiting power of carbonic acid over the excito-motor function of the respiratory centres. On October 18, however, M. BERT replied to this statement, and asserted that he believed that the true cause of the convulsions in asphyxia is the deprivation of oxygen, this opinion was founded upon the fact that convulsions ensue when animals are deprived of oxygen, and when there is no variation in the amount of the carbonic acid, and furthermore, they do not appear when there is an accumulation in the organism of toxic doses of the acid. If the acid be an excitant of the nervous centres the effects should ensue when there is a slow accumulation, which is not the case. He thought it certain that the phenomena of inhibition described by Brown-Séquard were capable of another interpretation.

SOCIETY PROCEEDINGS.

THE AMERICAN MEDICAL ASSOCIATION

Official Record of the Thirty-sixth Annual Meeting, held on April 28, 29, 30, and May 1, 1885

TUESDAY, APRIL 28, FIRST DAY

The Association assembled on April 28, 1885, at 11 A M, in Tulane Hall, New Orleans, and was called to order by Dr Samuel Logan, chairman of the Committee of Arrangements After a prayer by Rev B M Palmer, D D, the chairman introduced the President, Dr Henry F Campbell, of Georgia

Vice-Presidents Dr J S Lynch, of Maryland, Dr J W Parsons, of Vermont, and H C Ghent, of Texas, the Permanent Secretary, Dr W B Atkinson of Pennsylvania, the Treasurer, Dr R J Dunglison, of Pennsylvania, and the Assistant Secretary, Dr W H Watkins, of New Orleans, were present

DR SAMUEL LOGAN, on behalf of the Committee of Arrangements, delivered the following

ADDRESS OF WELCOME

Mr President and Gentlemen of the American Medical Association,—Your organization having now been duly effected under the officers chosen at your last meeting to preside over your deliberations on this occasion, it becomes my pleasing duty, in behalf of my confreres of New Orleans as well as in the name of my other fellow citizens, to extend to you a cordial welcome—a welcome as genial as the clime we live in, tempered by the balmy breezes of the "Mediterranean of the West"—a welcome as deep and full as the placid river whose steady current brings us constant messages of kinship and of union from so vast an extent of our common country

Represented in this mighty Mississippi at our side are streams that come from great cities dotting at frequent intervals its fertile valleys, from village after village whose church towers peep through the foliage of its vast expanse of sloping background, from the lordly country seats and rustic homes, from the meadows, fields, and forests, from the prairies, steppes, and rugged mountain sides of half a continent! Concentered in its current flow the streams that come from all this great extent of territory—wonderful in its variety of soil, of climate, of scenery, and of productions So, gathered in this hall, I see before me representative detachments from a brotherhood that compasses a still wider scope You have come to us, not only from the vast area embraced within the thousand arms of this great river, but also from the rocky coasts, the rugged hillsides, and the smiling valleys and snow-capped mountains of the populous East, you have come from the sandy shores, the piny plains, and rolling highlands of the Atlantic slope you have come from the Sunny Southland, with its extended fields of snowy cotton, its vine-entangled forests bedecked with a drapery of waving moss, and its semi-tropic shores and numerous islands, laved in the tepid waters of the Gulf, from the distant ultra-montane regions of the Pacific have you come, crossing the backbone of the continent, and speeding over the arid desert on your errand of brotherhood in a noble cause From North, from East, from South, from West, you come to meet in council for that common cause Workers yourselves, and representing thousands of fellow workers, you assemble here to report progress, and by personal contact to stimulate each other to still further efforts in behalf of scientific medicine Welcome, welcome for your cause, as also for yourselves

Scientific medicine is the application of knowledge of all kinds—that is, of science—to the physical, the mental, and the moral benefit of mankind

Science unapplied, or applied only to the gratification of personal vanity or personal taste, is cold and soulless, use it for man's best interests and it becomes elevated to the dignity of a religion Excuse the boldness of the assertion, but I venture to repeat and to emphasize my definition This application of knowledge to man's highest interests on earth is the religion of science—an eminently practical religion, showing itself by its works, a religion which, humble though it be, and fully conscious of its imperfections, still struggles with its best efforts to do good, a religion which asserts its fallibility, and by that very assertion holds out an assuring promise of continued improvement, a religion which, *ex necessitate rei*, can have no set creed, for, modified by the ever increasing fund of abstract knowledge, its intellectual formulæ must change accordingly, while its benevolent work goes on, forever improving with the accumulating knowledge of the ages Assembled representatives of the priesthood of this religion, almost coeval with man's advent on earth, and destined to endure even to the "last syllable of recorded time," whose votaries are confined within no limits of country, of nationality, of race or creed, we are proud to welcome you among us May your stay with us be pleasant, and may your deliberations and your conferences be worthy of this great cause so dear to the heart of humanity

More than a decade has elapsed since we of New Orleans enjoyed this privilege During that time your work has gone bravely on, and your numbers have greatly increased But the places of many old and honored members whom we, who are now in turn growing gray in the harness, so well remember at the last meeting here, are filled by younger men, while many have passed from earth Excuse us if the joy of our welcome be mellowed by our sorrow for their absence

The meeting I allude to was an era in the history of our Association A sad interval had occurred, civil war had cast its blight over the land, and its shadow still darkened our lives and unduly embittered our hearts Then came the time when one who commanded the respect and admiration of all saw the happy opportunity for one more act of far-reaching good He, of all others, best knew how to utilize that opportunity Through his personal influence, so magically genial, yet so firm, he wrought out the too long deferred reconciliation in our ranks Starting with the advocacy of a distinguished Alabamian for your highest office and seeing him elected, he next, aided by his distinguished pupil—one whom you have also since honored in like manner, and in honoring whom you have honored us—he caused the selection of this metropolis of the South as the fit scene for the happy consummation of his heart's desire The deed was done For to such an invasion under such a leader in such a cause, we could offer no resistance With an almost paternal authority he gathered his children around him once more in the common household, and taught us to work together again in peace and amity He lived to see the full fruition of his labor of love, but has gone at last full of honor to his rest Again we meet in this hall, hallowed by his dearest memory, and again have you honored with your highest gift another distinguished southerner Would, Mr President, he were with our other ex-presidents at your side on this occasion To few, indeed, is it given to be great in heart as well as brain, but were we asked to point from our ranks a single instance of this happy combination, what name would spontaneously start from every lip but that of Samuel D Gross? May his well spent life prove an ever fruitful example for the young men of our profession, and may his noble spirit be ever present with us all, to bind us with an enduring bond of brotherhood

By invitation, ex-Presidents Dr N S Davis, Dr T G Richardson, and Dr J M Toner took seats on the platform

Vice-President Dr J S Lynch, of Maryland, took the chair, and the President delivered the annual address (See JOURNAL, May 2, 1885)

On motion of Dr W Brodie, of Michigan, thanks were tendered the President for his able address, and it was referred for publication

On motion of Dr I N Quimby, N J, a committee of five was appointed to take into consideration and report on the suggestions of the President in regard to forensic medicine

Dr T G Richardson, La, on behalf of Dr A Flint, of N Y, who was absent, read the report of the committee on the death of Prof S D Gross, M D On motion, this report was accepted, and referred for publication (See JOURNAL of May 9, p 527

DR J S BILLINGS, U S A, reported the complete success of the effort to obtain an appropriation from Congress for fire proof buildings for the Army Medical Museum and Library, and that building operations will soon be commenced

On motion, the report was received

Dr Billings further reported on behalf of the committee to invite the International Medical Congress to meet in the United States in 1887, as follows

WASHINGTON, D C, April, 1885

TO THE PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION

Sir,—I am directed by the Executive Committee of the Ninth International Medical Congress, to be held in Washington, 1887, to present to the American Medical Association a copy of the preliminary rules and regulations adopted by the General Committee of Organization of said Congress, together with lists of the officers and members of the several councils of sections thus far elected You will observe that the President of the American Medical Association is designated to be *ex officio* one of the vice-presidents of the Congress

In accordance with the resolution passed by the Association at its Washington meeting last year, the committee appointed for that purpose met at Copenhagen in August last, during the meeting of the International Medical Congress, and presented the invitation with which it was charged

This invitation having been accepted, the committee met in New York on the 9th of October, and, in accordance with its instructions, proceeded to enlarge its number by appointing additional members representing the medical profession in different parts of the country

The General Committee thus organized met in Washington on the 29th of November, and perfected its organization by the election of officers and by passing certain preliminary rules and regulations for the organization of the Congress The work of organization was then taken up by the Executive Committee, and was continued by means of correspondence with the General Committee, the results being contained in the pamphlet herewith presented, which has been widely republished in the journals

Copies of this pamphlet, translated into French and German, have been extensively circulated abroad, being sent to the leading medical journals in every civilized country

The Committee of Finance is now engaged in perfecting its organization, and in preparing a comprehensive plan for raising the funds necessary to carry out the work, and the officers and councils of the several sections are now engaged in the consideration of programmes for the work of their respective sections

It is anticipated that within the next six months these programmes will be approximately completed, and that at the meeting of the General Committee to be held in Washington, about the 1st of May next year, the arrangements for the Congress will be in an advanced and definite shape for presentation and publication

Very respectfully, your obedient servant,

JOHN S BILLINGS, *Secretary-General*

On motion of Dr J M Keller, Ark, the consideration of this report was made the special order for Wednesday at 12 M

The Permanent Secretary offered the report of Dr A L Gihon, U S N, on the

MONUMENT TO DR BENJAMIN RUSH

On motion of Dr Toner, it was deferred until Friday, at 10 A M

The Chairman of Committee of Arrangements presented several volunteer papers, which on motion were referred to the section on surgery

He presented the following list of persons to be invited to seats with the Association Dr Edward Jones, Dr A B Miles, Dr C J Bickham, of New Orleans, La, Prof A E Foote, M D, of Philadelphia, Dr J J Gauthereaux, Welcome P O, La, Dr Jas R Scarborough, Clinton, Ky

On motion, these gentlemen were invited to seats

Invitations from the Bureau of Education at the Exposition and the Young Men's Christian Association were received

Dr R A Kinloch, of South Carolina, by request of the South Carolina Medical Association, presented a communication relative to the discovery of the

ANÆSTHETIC PROPERTIES OF ETHER

On motion of Dr R B Cole, of California, the matter was referred to the section on Practice of Medicine and Materia Medica for consideration and report to the Association

On motion, the Association adjourned until Wednesday at 10 A M

WEDNESDAY, APRIL 29, SECOND DAY

The Association was called to order at 10 A M by the President, **Henry F Campbell, M D**, and prayer was offered by Rev J K Gutheim, D D

The Permanent Secretary then read the following

Montgomery, Ala, April 28, 1885

For reasons that I could not control, I find it impossible to be with you I trust that you may have a pleasant and prosperous meeting

W O Baldwin

Also a telegram from Dr C H Von Klein, Ohio, asking that his amendments be laid over in his absence Both were directed to be entered on the minutes

The Permanent Secretary called the roll of states and announced the following as constituting the

COMMITTEE ON NOMINATIONS

Alabama, Jerome Cochrane, Arkansas, L P Gibson, California, R Beverly Cole, Dakota, W E Duncan, District of Columbia, A Y P Garnett, Florida, J P Wall, Georgia, R J Nunn, Illinois, J H Hollister, Indiana, L D Waterman, Iowa, D W Krouse, Kansas, G R Baldwin, Kentucky, B L Coleman, Louisiana, T G Richardson, Maine, S C Gordon, Maryland, John Morris, Massachusetts, C H Shackford, *Michigan*, H O Walker, *Minnesota*, J H Murphy, Mississippi, J M Taylor, Missouri, L G Attwood, New Hampshire, J W Parsons, New Jersey, W Pierson, New York, C C Wyckoff, North Carolina, O H Aiken, Nebraska, R C Moore, Ohio, W H Phillips, Pennsylvania, R S Sutton, Rhode Island, W E Anthony, South Carolina, R A Kinloch, Tennessee, Duncan Eve, Texas, J B Robertson, Vermont, E F Upham, Virginia, J A White, West Virginia, J H Pipes, Wisconsin, S S Riddell, Wyoming, J J McAchran, United States Army, Jos R Smith, United States Navy, Geo Peck, 'United States Marine Hospital Service, J Godfrey

Dr H D Didama, of New York, Chairman of that Section, delivered the address on Practical Medicine, Materia Medica, and Physiology On motion, it was referred for publication

Dr R S Sutton, of Pa, Chairman of the Section, delivered the address on Obstetrics and Diseases of Women On motion, it was also referred, and thanks were tendered for the address

Dr W C Van Bibber, of Md, then read in part a paper on "Peninsular and Sub-Peninsular Air and Climate" (See p 536)

It being the hour for special business, Dr X C Scott, of Ohio, raised the point of order that the reading must be suspended The President ruled that the special business was in order, and the further reading was suspended

The

REPORT ON THE INTERNATIONAL MEDICAL CONGRESS

was then taken up, and Dr J V Shoemaker, of Pa, made an earnest protest against the report of the committee

Vice-President, Dr J S Lynch, of Md, then took the chair, and Dr F E Daniel, of Texas, offered the following preamble and resolution

Whereas, At the last meeting of the American Medical Association, a committee of seven members was appointed to confer with the International Medical Congress, at Copenhagen, with the view to securing the next meeting of that body, in 1887, in Washington, D C, and for the purpose of arranging for said meeting, and,

Whereas, This committee, after having accomplished said object, have proceeded, without authority from this body, to appoint the several officers of sections and committees, which appointments have been published in detail in the Journal of the American Medical Association, and other publications, thus acquiring the color and aspect of the official action of this Association, and,

Whereas, This Association recognizes said committee as a Committee of Arrangements only, and approves of its action only in so far as the duties of the Committee of Arrangements have been discharged, declines to indorse or accept the said appointments as published in said journals—therefore be it

Resolved, That the Committee on Nominations be instructed to proceed to select and present to this body for its approval, first a president and the various officers of committees and sections for said approaching meeting of the said International Medical Congress

After discussion by Dr Billings, Drs J F

Gabriel, of Ohio, I N Quimby, of N J, and Dr J M Keller, of Ark, offered as a substitute the following

Resolved, That the committee appointed by this Association to arrange for the meeting of the International Medical Congress in America, in 1887, be enlarged by the addition of thirty eight members, one from each state and territory, the army, navy, and marine hospital service, to be appointed by the chairman at this meeting, and that the committee thus enlarged shall proceed at once to review, alter, and amend the motions of the present committee as it may deem best

Further discussion was had by Dr Cole, of Cal, Dr King, of Mo, and Drs Shoemaker and Daniel, when Dr D D Saunders, of Ohio, offered the following as a substitute

Resolved, That the actions of the International Congress Committee, so far as they have gone, be approved by this body, provided all new code men be left out

This resolution was discussed by Drs J B Roberts, of Pa, A R Smart, of Mich, and H C Ghent, of Texas, when a motion to adjourn was offered, and lost by a vote of 44 to 360 Dr Saunders' substitute was then rejected by a vote of 88 to 129

Dr Keller's motion was then adopted, with the amendment offered by Dr Byrd, of Arkansas, that the members of the committee should be selected by the respective state delegations

The Association then adjourned until Thursday, at 10 A M

THURSDAY, APRIL 30, THIRD DAY

The PRESIDENT called the Association to order at 10 A M, and prayer was offered by Rev H H Waters, D D

The Committee of Arrangements presented an invitation from Mrs T G Richardson, to members of the Association and their ladies, to visit her grounds and conservatories at their convenience, from the Young Men's Christian Association to use their rooms, and from the Board of Regents of the Charity Hospital to visit their institution

Dr Wm Brodie, of Michigan, having called for the reading of the roll of members as registered, on motion of Dr J M Toner, of D C, it was dispensed with

Dr Potter called up the amendment to the by laws as offered by Dr Foster Pratt at last session, empowering the sections to select their own officers, and Dr J F Hibberd, of Ind, moved its adoption Dr N S Davis, of Ill, offered an amendment that it be laid over for consideration at the next session, this was accepted by Dr Hibberd, and on vote was adopted

DR N S DAVIS presented the report of the standing committee on Meteorological Conditions and their Relations to the Prevalence of Disease On motion of Dr Brodie the report was received and referred for publication, and the committee was continued

Dr N S DAVIS also presented the report on

COLLECTIVE INVESTIGATION OF DISEASE

in cooperation with the committee of the British Medical Association

The report stated that these special investigations into disease were going on in nearly all the European countries, India, the United States, and South America The committee recommended that they be authorized to continue their correspondence with the committee of the British Association and the committee of the International Congress, and that the detailed work be carried on by committees appointed by state societies cooperating with the Central Committee and General State Committee The Central Committee would act as the medium of communication between the local and foreign committees The recommendation was adopted

DR DAVIS also reported for a special committee on explanatory declarations concerning the proper interpretation of the Code of Ethics, appointed at the meeting of May, 1884 The committee submitted the following preamble and resolutions

WHEREAS, Persistent misrepresentations have been and still are being made concerning certain provisions of the Code of Ethics of this Association, by which many in the community, and some even in the ranks of the profession are led to believe those provisions exclude persons from professional recognition simply because of differences of opinions or doctrines, therefore

1 *Resolved*, That clause first, of Art IV, in the National Code of Medical Ethics is not to be interpreted as excluding from professional fellowship, on the ground of differences in doctrine or belief, those who in other respects are entitled to be members of the regular medical profession Neither is there any other article or clause of the said Code of Ethics that interferes with the exercise of the most perfect liberty of individual opinion and practice

2 *Resolved*, That it constitutes a voluntary disconnection or withdrawal from the medical profession proper, to assume a name indicating to the public a sectarian, or exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession

3 *Resolved*, That there is no provision in the National Code of Medical Ethics in any wise inconsistent with the broadest dictates of humanity, and that the article of the Code which relates to consultations cannot be correctly interpreted as interdicting, under any circumstances, the rendering of professional services whenever there is a pressing or immediate need of them On the contrary, to meet the emergencies occasioned by disease or accident, and to give a helping hand to the distressed without unnecessary delay, is a duty fully enjoined on every member of the profession, both by the letter and the spirit of the entire Code

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But no such emergencies or circumstances can make it necessary or proper to enter into formal professional consultations with those who have voluntarily disconnected themselves from the regular medical profession, in the manner indicated by the preceding resolution

N S Davis, of Chicago,
A Y P Garnett, of Washington,
H F Campbell, of Augusta, Ga,
Austin Flint, of New York,
J B Murdock, of Pittsburgh

On motion of Dr Brodie, the resolutions were unanimously adopted

On motion of Dr Keller, it was unanimously agreed that the resolutions be added as an explanatory addendum in all future publications of the Code

By request of Dr J B Hamilton, U S Marine Hospital Service, the

ADDITIONAL COMMITTEE ON INTERNATIONAL MEDICAL CONGRESS

was read, as follows

D A Linthicum, Helena, Ark, G A Ketchum, Mobile, Ala, R B Cole, San Francisco, Cal, Charles Denison, Denver, Colo, A Y P Garnett, Washington, D C, L P Bush, Wilmington, Del, R Battey, Rome, Ga, E P Cook, Mendota, Ill, F W Beard, Vincennes, Ind, Wm Watson, Dubuque, Iowa, D W Stormont, Topeka, Kas, W H Wathen, Louisville, Ky, J W Dupree, Baton Rouge, La, S C Gordon, Portland, Me, A H Wilson, South Boston, Mass, J S Lynch, Baltimore, Md, A R Smart, Hudson, Mich, Geo F French, Minneapolis, Minn, J M Taylor, Corinth, Miss, N F Essig, Plattsburg, Mo, Wm Pierson, Orange, N J, Ellsworth Elliot, New York, N Y, J W Parsons, Portsmouth, N H, R C Moore, Omaha, Neb, X C Scott, Cleveland, Ohio, J V Shoemaker, Philadelphia, Pa, W E Anthony, Providence, R I, R A Kinloch, Charleston, S C, F L Sim, Memphis, Tenn, J W McLaughlin Austin, Texas, E F Upham, West Randolph, Vt, W C Dabney, Charlottesville, Va, G Baird, Wheeling, W Va, Nicholas Senn, Milwaukee, Wis, Robert Murry, U S Army, Washington, D C, F M Gunnell, U S Navy, Washington, D C, J B Hamilton, U S Marine Hospital Service, Washington, D C, W E Duncan, Dakota Ter

Dr Duncan Eve, of Tennessee, Chairman of the Section, delivered the address in Anatomy and Surgery, and on motion, it was referred for publication

On motion of Dr Toner, the paper partially read by Dr Van Bibber was referred to the Committee on Publication

Vice-President Dr S D Mercer took the chair By request of Dr E W Schauffler, of Mo, Chairman of that Section, the address on State Medicine was referred without reading

The Permanent Secretary read the report of the Treasurer, which, on motion, was accepted and entered on the minutes as follows

REPORT OF THE TREASURER

I have the honor to report that the balance in the treasury at this date is $932 11 The total receipts for the fiscal year have been $17,093 26, being an increase of nearly $3,200 over those of last year The new source of revenue instituted by the Association at its last meeting at Washington, in the establishment of a membership by application, has resulted in the addition of 125 names, thus materially adding to the numerical and financial strength of the Association It is believed that when this method of joining the Association becomes more generally known to the profession, it will—especially if properly placed before it by the Treasurer in the shape of circulars and forms of application—become of still greater importance to this body, particularly in regions so distant from the usual places of meeting as often to preclude medical men from personal attendance

Richard J Dunglison, M D,
April 30, 1885 *Treasurer*

DR RICHARD J DUNGLISON, TREASURER, IN ACCOUNT WITH THE AMERICAN MEDICAL ASSOCIATION

1884		CREDIT		
May	6	To Cash balance, as per report at Washington meeting	$2,212 07	
'	6	To Cash received from members and delegates at Washington meeting	6,135 00	
1885				
April	28	To Cash received to date for dues from permanent members and subscribers	2 910 00	
	28	To Cash received to date for dues from members by application	625 00	
"	28	To Cash received to date from Dr J H Hollister, Chicago, Treasurer of the Board of Trustees of the Journal	5,144 69	
"	28	To Cash received from sale of volumes	66 50	
			————	$17,093 26
1884		DEBIT		
May	9	By Cash paid Dr A Y P Garnett, Chairman Com of Arrangements, Washington Meeting	$252 50	
"	9	By Cash paid Riggs & Co, exchange on draft	5 50	
'	19	By Cash paid Dr R J Dunglison, Treasurer, expenses of travel, postage, expressage, telegrams, etc, as per order of the Association	46 75	
"	19	By Cash paid Wm F Fell & Co stamped envelopes, printing of circulars etc	30 00	
	20	By Cash paid Wm F Fell & Co, printing slips, postals, stamped envelopes, postage, etc	37 70	
"	26	By Cash paid Dr Wm B Atkinson, Permanent Secretary, expenses of travel, expressage, etc	31 00	
"	30	By Cash paid T K Collins, printing circulars bills, blanks, register, etc for Permanent Secretary, 1882 and 1883	50 75	
June	12	By Cash paid Dr C H A Kleinschmidt, Librarian, for use of library, as per order of the Association	200 00	

June	28	By Cash paid Wm F Fell & Co , printing slips, blanks, etc	$ 13 75
July	23	By Cash paid T K Collins, printing circulars, envelopes, etc , and stamped envelopes for Permanent Secretary	54 75
Aug	18	By Cash paid Dr R J Dunglison, Treasurer, postage, expressage, freight, printing, addressing circulars, etc ,to date	34 78
	29	By Cash paid Wm F Fell & Co , printing circulars cards, noteheads, stamped envelopes	22 00
"	29	By Cash paid Wm F Fell & Co , stamped envelopes printing slips, cards etc	7 30
Oct	1	By Cash paid Wm F Fell & Co , printing cards and slips, stamped envelopes	15 90
Dec	11	By Cash paid Dr J M Browne, Treasurer of Committee on International Medical Congress, as per order of the Association	200 00
1885			
Jan	3	By Cash paid Dr R J Dunglison, Treasurer, postage, expressage, printing, etc , to Dec 31	72 57
"	17	By Cash paid Wm F Fell & Co , printing	13 15
Feb	7	By Cash paid Wm F Fell & Co , printing circulars, etc , stamped envelopes	12 00
April	15	By Cash paid Dr J M Browne, Treasurer of Committee on International Medical Congress, as per order of the Association	200 00
"	25	By Cash paid Dr Richard J Dunglison, Treasurer, postage, telegrams, stationery, etc , to date	45 68
		By Cash paid Dr Wm B Atkinson, Permanent Secretary, expenses, telegrams, postage, expressage, travel	56 54
1884			
April	28	By Cash paid Dr N S Davis, Editor, for publication expenses of the JOURNAL to date	11,427 53
"	28	By Cash paid Dr N S Davis, Editor, for editorial work on the JOURNAL to date	3,331 00
	28	Balance	932 11
			$17,093 26

NEW ORLEANS, April 30, 1885

This certifies that I have carefully examined the preceding accounts of the Treasurer, R J Dunglison, embracing the receipts and expenditures on account of the American Medical Association for the year 1884–5, and find them accurately cast and properly vouched, the receipts amounting to $17,093 26, the expenditures amounting to $16,161 15, the balance being $932 11 ALONZO GARCELON,
Auditor

The Librarian's report not being at hand, on motion he was directed to forward it to the editor of the JOURNAL

DR J M TONER, President of the Board of Trustees, presented the following report

The trustees for publishing the Transactions of the American Medical Association in journal form, beg leave to submit their

ANNUAL REPORT OF THE TRUSTEES

It will be borne in mind that the annual meetings of the Association are not governed by fixed dates, the time depending upon the place of meeting, while the JOURNAL year dates annually from the 1st of July Hence the report submitted at the last annual meeting could only cover the work of the first, second, and third quarters of the first year of the JOURNAL'S publication The present report embraces the transactions of the Board during the fourth quarter of the first year of the JOURNAL'S publication, and the first, second, and third quarters of its second year

The questions which confronted us as we entered upon our work were of no ordinary magnitude You asked at our hands the publication of a weekly journal which should do credit to the Association We were without capital—without the moneyed interests which elsewhere lie back of journalistic ventures, and, happily, we had not the power to incur indebtedness The average receipts of your treasury in former years would not have defrayed the expenses of such a journal for more than one third of a single year But in the confident belief that the medical profession would sustain the enterprise, you bade us go forward We have been obedient to your command, and we think that the results set forth in this report will show that the responses of the profession have met expectation

In the careful supervision of the publication and the exercise of a rigid economy, so necessary to its success, we wish to place on record our high appreciation of the services of the editor, Dr N S Davis And that his services and the financial condition of the JOURNAL may be rightly appreciated, we deem a few words in explanation necessary You are aware that in the publication of a journal a large part of the cost for labor and materials must be paid *at sight* For such expenses it was our first and anxious thought to provide The money needed for the work was, as yet, largely in the hands of subscribers, and bills for advertising were only available at the completion of contracts There was a critical period in this enterprise, but we are happy to predict that, if the Association shall rigidly husband its resources in the future, no such a crisis need again occur Our printing bills and current expenses of every kind have been paid

And now as to the editorial management It is true you voted to place at the disposal of the trustees $6,000 for editorial work But no such sum has been at our command for that purpose It only remained for us to make the best use we could of *what we had* The editor, therefore, employed only such assistance as we could pay for, and the simple reason why the JOURNAL did not represent a larger amount of editorial work and a wider range of medical correspondence was because we had not the money for their employment The editor has therefore bestowed his own time and employed assistance to such extent as our means would permit, steadily adhering to the purpose that the Journal should not fail or be involved in harassing debt The receipts of the Journal have enabled us to compensate the editor and his assistants to *his* full satisfaction Thus we are able to report at the close of its second year, that your Journal is free from debt

We are happy to state also that the Journal has created and now commands an income which, if not diverted elsewhere, will enable us to encourage the editor, as he has so much desired, to employ a requisite corps of assistants, and secure such home and foreign correspondence as shall entitle the Journal to rank with the foremost medical journals in the land To acquaint you more fully with the financial condition of the Journal, we here submit a portion of the editor's report

"In the report made to the Board of Trustees at the annual meeting in Washington, May, 1884, it was stated that up to March 31, 1884, the whole number of names of permanent members of the Association, reported at the publication office by the Treasurer as entitled to the Journal, was 2,069, and at the same time there were in addition 1,202 receiving the Journal as subscribers, making an aggregate of 3,271 On the 31st of March, 1885, the number of names of permanent members reported by the Treasurer as entitled to the Journal, had increased to 3,050, while the number receiving it as subscribers had diminished to 850—making the aggregate number receiving the Journal as paying members and subscribers at the end of the third quarter of the second year of publication, 3,900, an increase during the year of 629

"It will be seen that the increase of paying members, as reported by the Treasurer, for the year ending March 31, 1885, is 981, while those standing as subscribers had decreased during the same period 352, leaving the net increase as before stated, 629 The apparent decrease of subscribers is caused almost entirely by the transferrence of the same parties to the list of permanent members Many of them came in as new members, at the meeting in May last, at Washington, and others have become members since then by *application*

The list of the latter is increasing daily Besides the distribution of the Journal to members and subscribers, 120 copies are required to supply exchanges, correspondents, and advertisers, making the total weekly circulation of the Journal on the 31st of March, 1885, 4,020 The whole number published each week is 4,200, leaving a surplus of 180 copies to supply deficiencies in the files of members and subscribers, a few extras to valuable contributors, etc

"Secondly, as to *Receipts* While examining the receipts at the office of publication, it should be kept in mind that all members of the Association, with only a few exceptions, pay their dues directly to the Treasurer of the Association, leaving only the receipts from subscribers and advertisers to be paid at the office of publication From these two sources just mentioned there have been received at the office of publication during the year ending March 31, 1885,—which includes the last quarter of the first year of the publication of the Journal, and the first three quarters of second year—the sum total of $6,172 57 Of this sum, $3,127 92 was for advertising, and $3,044 65 was from subscribers Of the $6,172 57 received during the year, $3,258 14 was from the assets belonging to the *first* year of publication of the Journal, and $2,914 43 from subscriptions and advertisements belonging to the second year, of the latter $1,145 45 was from subscribers, and $1,768 98 from advertisers There remain for collection as assets of the second year of publication, all the proceeds of the advertising columns of the third and fourth quarters of the second year, which will be about $2,000 And the unpaid subscriptions of nominally $3,000 more Allowing a liberal per cent of loss on the last-named sum it would leave the probable income at the office of publication for the second year, ending June 30, 1885, of not much less than $6,000

"For the amount paid to the Treasurer by our 3,050 permanent members of the Association, we must rely upon the report of that officer If all pay their dues or membership fees of $5 each, the receipts will aggregate from that source some $15,250, and a total *income* from all sources for the second year of publication of over $21,000

"Thirdly, as to *Expenses* The total cost for publishing the Journal during the year ending March 31, 1885, including everything except editorial salary, was $12,120 18, of which $2,907 42 was for the fourth quarter of the *first* year of publication, and $9,150 52 for the first, second, and third quarters of the second year ending March 31, 1885 Allowing the same ratio of publication expenses for the fourth quarter of the present year which will conclude Vol IV, ending June 31, 1885, the total cost of publication of the Journal for the second year, not including pay for editorial work, would be $12,160 52, being $1,971 73 more than the cost of publication for the first year

"A large part of this increase, however, is occasioned by the printing of the triennial list of the names of the permanent members, and the publication of the 1,000 extra copies of the Constitution, By-Laws, Code of Ethics, and Proceedings of the last Annual Meeting for the use of new members, as directed by vote of the Association The remainder of the increase is due to the increase of the edition and the advertising pages The cost of publication proper for the first year, ending June 30, 1884, was $11,078 68, and for the editorial department, $3,067 12, making the *total* expenses of the first year, $14,145 80

"At the annual meeting of this Association in Washington, May, 1884, it was stated both in the report of the Treasurer, and of the Editor of the JOURNAL, that the actual receipts for membership dues for 1883, and from advertisers and subscribers during the first three quarters of the JOURNAL year were $13,017 25 In the editor's report it was further stated, that there remained due and unpaid from subscribers whose original pledges of support were on file in the office of publication, and from advertising during the third and fourth quarters of the *first* year, an aggregate of $5,100, which, if paid, would make the total receipts for the year $18,117 25 And supposing the ordinary current expenses of the Association, aside from the publication of the JOURNAL, to be not more than $1,000 *per annum*, he predicted that the final income for the first year would be sufficient to pay the full amount required both for publication and editorial work, and leave a small surplus in the treasury

"Of the $5,100 nominal assets, uncollected, entering into the estimate of the Editor in his former report, $3,354 34 have since been collected, making the total receipts on account of the first year of the publication of the JOURNAL, from all sources up to March 31, 1885, $16,371 59, or about $1,700 less than had been estimated This was occasioned by the failure of a little more than 300 of those who had originally pledged payment of subscriptions, to redeem their pledges, and of two parties to fully pay the amounts of their advertising bills As the total amount drawn from the treasury of the Association on account of the publication and editing of the JOURNAL for the first year was $14,153 80, and the actual current expenses of the Association, not connected with the publication of the JOURNAL, were $2,148 66 instead of $1,000, as the Editor had supposed in his estimate, the difference between his estimates and the final actual receipts for the first year of publication is fully explained, and shows an actual amount of total receipts over the total expenses of that year, of $77 13"

Considering the nature and number of the conditions involved, we think the results show unusual correctness of estimates, and if the estimate of the Editor for the current year shall prove as accurate as for the preceding one, it should satisfy the most exacting friends of the Association

In conclusion, we desire to state that the reports of the Editor, the Treasurer of the Board, and of the Chairman of the Business Committee, have been duly received and *approved* The Trustees have concluded, after considering the bids from various sources, to continue the publication of the JOURNAL in Chicago, promising the Editor all needed assistance The fullest consideration was given to the subject of Editor, we earnestly requested Dr N S Davis to withdraw his resignation and to continue his relations with the JOURNAL as its supervising Editor, to which he has replied as follows

"Having accepted the responsible and laborious position of Editor of the JOURNAL of this Association at the beginning, from no other motive than a desire to aid in its successful establishment, I had a strong desire to retire as early as possible to the quiet that age demands

"But a sense of duty impels me to still further suspend the resignation that I placed in your hands last year, and to yield to your unanimous request to continue the editorial superintendence of the JOURNAL, until such time as you may appoint a successor Yours truly,

N S DAVIS"

All of which is respectfully submitted

J M TONER, *President*

On motion of Dr Quimby, the report was accepted, and the Editor, Dr N S Davis, was continued, with the thanks of the Association, tendered by unanimous vote

The Permanent Secretary presented the following communication from the Section of State Medicine, which was read, and on motion laid on the table

In the meeting of the Section on State Medicine, Wednesday, April 29, 1885, the following resolutions were offered by Dr John B Roberts, of Philadelphia, and adopted by the Section

"*Resolved*, That the Section on State Medicine earnestly advocates the establishment in every state and territory of State Boards of Medical Examiners and Licensers, whose certificate shall be the only license permitting practice of medicine in said states,

"*Resolved*, That the Section requests the American Medical Association to direct its Permanent Secretary to transmit a copy of the annexed draft of a bill to the secretary of each and every state medical society, requesting that each state society discuss said bill, and report at the next meeting of this Association its views on the desirability of advocating such a bill"

I am requested by the Section on State Medicine to ask you to bring these resolutions as early as possible before the Association, that it may take prompt action on the second resolution

The report of Dr A L Gihon, chairman of the committee on the erection of a

MONUMENT TO DR BENJAMIN RUSH

was called for and read by the Permanent Secretary (see JOURNAL of May 23)

On motion of Dr I N Quimby, of New Jersey, the resolutions appended to the report were adopted and the report referred for publication

The PRESIDENT appointed the following committee to consider so much of his address as relates to the establishment of

A SECTION OF MEDICAL JURISPRUDENCE

Drs I N Quimby, N J, X C Scott, Ohio, W W Dawson, Ohio, F E Daniel, Texas, J V Shoemaker, Pa, Eugene Foster, Ga, and H F Campbell, Ga, *ex officio*

The Committee on Nominations, through its

Chairman, Dr R A Kinloch, of S C, made the following nominations for

OFFICERS FOR THE ENSUING YEAR

President—Wm Brodie, Detroit, Mich

1st Vice-President—Samuel Logan, New Orleans, La

2d Vice-President—A Y P Garnett, Washington, D C

3d Vice-President—Charles Alexander, Eau Claire, Wis

4th Vice-President—W F Peck, Davenport, Iowa

Permanent Secretary—Wm B Atkinson, 1400 Pine St, Philadelphia, Pa

Treasurer—Richard J Dunglison, Lock Box 1274, Philadelphia, Pa

Librarian—C H A Kleinschmidt, Washington, D C

OFFICERS OF SECTIONS

Section of Practice of Medicine, Materia Medica, and Physiology Chairman, J T Whittaker, Cincinnati, Ohio, Secretary, B L Coleman, Lexington, Ky

Section of Obstetrics and Diseases of Women Chairman, S C Gordon, Portland, Me, Secretary, —— Paine,[1] Texas

Section of Surgery and Anatomy Chairman, Nicholas Senn, Milwaukee, Wis, Secretary, H H Mudd St Louis, Mo

Section of State Medicine Chairman, John H Rauch, Springfield, Ill, Secretary, F E Daniel, Austin, Texas

Section of Ophthalmology, Otology, and Laryngology Chairman, Eugene Smith, Detroit, Mich, Secretary, J F Fulton, St Paul, Minn

Section of Diseases of Children Chairman, W D Haggard, Nashville, Tenn, Secretary, W B Lawrence Batesville, Ark

Section of Oral and Dental Surgery Chairman, John S Marshall, Chicago, Ill, Secretary, A E Baldwin, Chicago, Ill

Committee on State Medicine, one from each state R D Webb, Alabama, J A Dibrell, Jr, Arkansas, F W Hatch, California, C Denison, Colorado, T Antisel, District of Columbia, L B Bush, Delaware, A S Baldwin, Florida, J P Logan, Georgia, D T Nelson, Illinois, E S Elder, Indiana, D S Fairchild, Iowa, H G Hanawalt, Kansas L B Todd Kentucky[2], S E Chaille, Louisiana F H Gerrish, Maine[3], L F Warner, Massachusetts, W C Van Bibber, Maryland, H B Baker, Michigan, D W Hand, Minnesota, B F Kitterell, Mississippi, Willis King, Missouri, A P Richardson, New Hampshire, L W Oakley, New Jersey, E M Moore, New York, Thomas F Wood, North Carolina, S F White, Nebraska, W M Beach, Ohio, J D Thomas, Pennsylvania, A Bellou, Rhode Island, Manning Simons, South Carolina, J B W Nowlin, Tennessee, Geo Cupples, Texas, H D Holton, Vermont, Charles Frissell, West Virginia, J T Reeve, Wisconsin, J R Smith, United States Army, George Peck, United States Navy, Walter Wyman, United States Marine Hospital Service, J J McAhran, Wyoming, W E Duncan, Dakota

Committee on Necrology J M Toner, Washington, D C, chairman, C H Franklin Alabama, D A Linthicum, Arkansas, C Denison, Colorado, R A Lancaster, Florida, J H Hollister, Illinois, J F Hibberd, Indiana, Wm Watson, Iowa, C V Mottram, Kansas, D S Reynolds, Kentucky, E S Lewis, Louisiana, Eugene Foster, Georgia, T A Foster, Maine, H O Marcy, Massachusetts, W Brinton, Maryland, W F Breakey, Michigan, G F French, Minnesota, B F Ward Mississippi, J M Scott, Missouri, E W Jones, New Hampshire, Stephen Wickes, New Jersey, J Lewis Smith, New York, Thos F Wood, North Carolina, F G Fuller, Nebraska, W Chapman, Ohio, I M Hays, Pennsylvania, W E Anthony, Rhode Island, Thos Legare, South Carolina, F L Sim, Tennessee, Jos H Sears, Texas, C F Chandler, Vermont, L B Edwards, Virginia, —— Howells, West Virginia, J K Bartlett, Wisconsin, W R Forward, U S Army, H W Austin, U S M H S, N L Bates, U S Navy, J J McAhran, Wyoming, W E Duncan, Dakota

Judicial Council R A Kinlock, South Carolina, D D Saunders, Tennessee, T G Richardson, Louisiana, G A Ketchum, Alabama, G Baird, West Virginia, J M Toner, D C, A M Pollock, Pennsylvania

St Louis was recommended as the place of meeting, and the time for the assembling of the next annual session, first Tuesday in May, 1886

Dr H D Didama, of Syracuse, New York, moved to substitute Washington for St Louis as the next place of meeting, but after some discussion withdrew the motion

On motion of Dr I N Quimby, of New Jersey, the report of the Nominating Committee was accepted and the nominations confirmed

The Association adjourned until 10 A M Friday

FRIDAY, MAY 1, FOURTH DAY

The Association was called to order at 10 o'clock A M, Vice-President J S Lynch in the chair After prayer by Rev Sylvanus Landrum, Dr I N Quimby offered the following resolution, which was adopted

Resolved, That the committee appointed in pursuance of a resolution adopted by this Association, April 30, 1885, to constitute an addition to the original committee of seven previously appointed to invite and make arrangements for the meeting of the International Medical Congress to be held in Washington, D C, in 1887, be and the said committee is hereby authorized and empowered to select a chairman and a secretary, and to fill all vacancies that may occur by death or inability to attend the committee meetings, and to appoint the officers of the Congress

Dr Wm Brodie presented his resignation as a member of the Judicial Council, which was accepted, and the Nominating Committee requested to fill the vacancy

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[1] The report does not state whether it is Charles T Paine, of Comanche Texas, or John F Y Paine of Galveston

[2] Dead

[3] Dead

Dr R Harvey Reed, of Ohio, offered the following resolution, which was adopted

Resolved, That a committee of three be appointed by the President, whose duty shall be to devise a system for the awarding of the *honors* to those who may desire to present

PAPERS FOR PRIZES OF HONOR

in the different Sections at the next meeting of this Association And that said committee report subsequently through the Association Journal

On motion of Dr Armstrong, of Texas, the resolutions previously offered by the Section of State Medicine in reference to

STATE BOARDS OF MEDICAL EXAMINERS

were taken from the table and adopted by vote of the Association

CREMATION

Dr J M Keller, of Ark, offered the following resolution

Resolved, That in our large cities, in the very near future, if not now, cremation of the dead will become a sanitary necessity

On motion of Dr John Morris, of Baltimore, the resolution was referred to a committee consisting of Drs J M Keller, S E Chaille, and H Tuholske, to report at the next annual meeting of the Association

The Committee on Nominations, through its Chairman, Dr R A Kinloch, made the following additional nominations

For Trustees of the Journal of the American Medical Association, Drs E M Moore, of Rochester, N Y, J M Toner, of Washington, D C, and J H Hollister, of Chicago, Ill

Chairman of the Committee of Arrangements, Dr Le Grand Atwood, of St Louis, Mo

Assistant Secretary, Wm C Glasgow, of St Louis, Mo

Member of Judicial Council (to fill a vacancy) Dr J K Bartlett, of Milwaukee, Wis

On motion the report was adopted

The Chairman of the Section of Ophthalmology, Otology, and Laryngology, Dr J A White, Richmond, Va, and the Chairman of the Section of Diseases of Children, Dr J H Pope, of Texas, read their addresses, which were listened to with attention, and were referred for publication

The Chairman of the Section of Oral and Dental Surgery being absent, on motion he was authorized to send his address to the Committee of Publication

Dr I N Quimby, in behalf of the Committee on so much of the President's address as relates to a

SECTION OF MEDICAL JURISPRUDENCE OR FORENSIC MEDICINE

reported recommending the "organization of such Section, and that it be known as the Section on Medical Jurisprudence, and that the By-Laws be amended by the addition of said Section after that on Oral and Dental Surgery"

After some discussion it was laid upon the table for one year as an amendment to the By-Laws of the Association

Dr J M Toner, Chairman of the Committee on Necrology, stated that biographical sketches of deceased members had been published from time to time in the Journal of the Association, and consequently no formal report was necessary

The officers of several Sections reported their minutes and papers, which were referred for publication

On motion the several amendments to the Constitution and By-Laws proposed at the last annual meeting were taken from the table for consideration The amendment offered by Dr Carl Seiler, of Philadelphia, proposing to create an additional Section to be known as Section of Otology, Laryngology, and Rhinology, was first taken up, and on motion its consideration was indefinitely postponed

The amendments offered by Dr Von Klein, of Ohio, were considered and again laid upon the table

The amendment to the By-Laws offered by Dr J Cochrane, of Alabama, was taken up, and after considerable discussion was, on motion of Dr J H Murphy, of Minnesota, laid on the table

The Permanent Secretary read a report from Dr A N Bell, of New York, as follows

To the American Medical Association

The undersigned, Chairman of Committee on Medical and Sanitary Service on Trans-Oceanic Passenger Vessels is constrained to report in behalf of the committee that owing, apparently, to a change in the membership of the sub committee on Commerce of the House of Representatives, and the extreme pressure of other business before that committee at the last session of Congress, your committee was not able to make any progress The subject is favorably before several members of Congress, however, and if it be the pleasure of the Association to continue the committee for another year, there is reason for hope that the purpose of the Association will be accomplished Respectfully submitted

New York, April 25, 1885

A N Bell, M D
Chairman of Committee

On motion, the report was received, and the committee continued

Dr M H Henry, of New York, was appointed a delegate to the British Medical Association, and the President and Permanent Secretary were authorized to make such further appointments to foreign medical societies as they might deem proper

Drs A Garcelon, of Maine, and J T Jelks, of Arkansas, offered the following resolution, which was seconded by Drs J H Murphy, J F Hibberd, and N S Davis, and was unanimously adopted

Resolved, That the thanks of this Association are hereby tendered to the medical profession, citizens, and press of New Orleans for the admirable arrangements, cordial reception, and kind treatment which we have received at their hands, and in a special manner to Dr and Mrs T G Richardson, Mr and Mrs Cartwright Eustis, and the New Orleans' Jockey Club, for their elegant receptions, to the Committee of Arrangements and the officers of the Association for their untiring zeal in carrying on the work of this body We assure them that we shall bear to our distant homes a lasting remembrance of the beauty and hospitality of the metropolis of the Mississippi Valley

On motion, the President appointed ex-Presidents J M Toner and T G Richardson a committee to conduct the President-elect to the chair The committee conducted Dr Wm Brodie, the President-elect for the ensuing year, to the platform, where he was received by the President and introduced to the Association

He made a brief and appropriate address, after which the retiring President, Dr H F Campbell, congratulated the Association for the orderly manner in which its business had been conducted, cordially thanked the members for their kindness and support, and declared the meeting adjourned to the first Tuesday in May, 1886

W B ATKINSON,
Permanent Secretary

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

Myoidema —The Opening of the Carnegie Laboratory of Bellevue Hospital Medical College

One of the most interesting features of the proceedings of the Academy of Medicine at its last meeting, May 7, was the discussion on the subject of "Myoidema" The paper of the evening was by Dr E Darwin Hudson, Jr, Professor of General Medicine and Diseases of the Chest in the New York Polyclinic, and one of the physicians to Bellevue and St Elizabeth's Hospitals, and treated of the physical examination of weak chests and the differential diagnosis of the several forms of early phthisis This sign, he said, may be regarded as a product of mediate percussion It is in no wise connected with chest acoustics, but rather pertains to the subject of the thoracic innovation and the influence of pulmonary tissue waste upon the spinal centre It is undoubtedly a special cutaneous reflex, characterizing many, perhaps most, phthisical cases, and it is so frequently present at the periods when caseation and secondary inflammations mark a case, hitherto uncertain as one of phthisis, that it may be regarded when present, as pathognomonic As early as 1830, Graves and Stokes described in the Dublin Hospital reports certain muscular tumors which appeared following direct percussion upon the chest in incipient phthisis, chiefly on the seat of irritation Warburton Bigbie observed and taught it as an evidence of phthisis

Lawson Tait, in 1871, in the *Dublin Journal of Medical Science*, described this phenomenon, and designated it more classically as *myoidema*, or "muscle tumor" Gairdner and Finlayson, in the work of the latter, also allude to the diagnostic value of the sign, and properly add that "myoidema" and "muscle tumor" are misnomers, since this reflex is of the skin alone, that it is best produced by quick strokes of two or more finger tips upon the costal cartilages, where no underlying muscle exists, and is much less marked over the muscles of the intercostal spaces Dr Hudson remarked that he should hesitate to call attention anew to a point advanced so long ago by Graves and Stokes, and which had presumably long since passed into oblivion because tried and found devoid of significance, were it not that he had first carefully studied it upon several hundred chests at Bellevue Hospital and the Polyclinic

"Being myself sceptical of its special relations to phthisis only," he continued, "I have at the outset asked myself, as most of my students in physical diagnosis have asked me, if it was not present in all cases of emaciation, wasting disease, and slow convalescence Hence, I have sought to find it in the chests of convalescents from protracted and depressing typhoid, in advanced cirrhosis, in abscess of the liver, in hemiplegics and paraplegics, and indeed, wherever disease had produced tissue waste

"The results of my observations were *First*, that it is usually present in established phthisis, where the long-standing and progressive intrathoracic disease has wasted the body *Second*, that it frequently exists in incipient phthisis *Third*, that it is exceptionally present in any other disease, and its presence in any such case justifies a suspicion of phthisis In but one case, a convalescent from typhoid, did it seem pronounced, and so exceptional was this case, that, though chest disease was not demonstrable, I felt that its early manifestations might soon appear Again, in cases of chronic bronchitis, bronchial dilation, and bronchiectasis, it does not appear, nor again in cases of thickened pleura, however extended, but when fibroid is developed, whether of bronchial, interstitial, or pleural origin, so as to contract the chest and cripple the lungs for respiratory service, and lessen the nutrition of the body, it begins to appear It is most pronounced when elevation of temperature, colliquitive sweating, and bodily debility indicate pulmonary tissue waste and caseation In advanced phthisis, with softening, cavity, and excessive muco purulent sputa, it reaches its maximum"

He stated that he usually percussed with a quick, firm blow, with two or three finger tips of the right hand, upon the costal cartilages of either side Instantly two or three little conoidal tumefactions appeared, rising to a variable height in different cases, ranging from one-sixteenth to one eighth, or, rarely, one-quarter of an inch Remaining fixed for a variable period, rarely so brief as a second, more often two or three seconds, they underwent a subsidence more gradual than the elevation, a vibratile, vacillating, interrupted recession Finlayson spoke of it as "a peculiar momentary starting and elevation of the skin" Dr Hudson said that he had sometimes seen in the intercostal space an associated reflex muscle wave, which floated away toward the shoulder until lost He concluded his reference to the subject as follows "I have, therefore, so far as I have studied myoidema, come to regard it as of diagnostic value I regard it as a corroborative sign of existing phthisis, and as indicating the arrival of a case of phthisis at a point when the nervous system and the vitality have become depressed beyond the point of resistance, and as marking the case as one tending toward an unfavorable result If found in a case upon which I had hitherto looked hopefully, it would lead me to renew my examination for evidence of infiltration and caseation" Dr Hudson then passed around a photograph representing two of these so called "muscle tumors"

The first speaker who took part in the discussion which followed the reading of the paper was Prof Alfred L Loomis, but he made no reference whatever in his remarks to this portion of it The next one, however, Dr Page, stated that he fully concurred in the views expressed in it in regard to myoidema Whether it was simply a coincidence or not, this sign was frequently present in cases of phthisis Graves and Stokes had mentioned that it was more often perceptible in the early than the later stages of the disease, but this was the reverse of his own experience in the examination of the chests of a hundred or more phthisical patients He had found that as the disease advanced and emaciation increased, this sign became more marked, and he believed that in the early stages it is likely to be obscured by the adipose tissue present Tait said that it was more perceptible on the side of the chest where the emaciation was most marked, and that he thought it was due to muscular contractility Schiff called it idio muscular contractility Forbes (1881) said that myoidema might be produced in typhoid or wasting diseases in all the muscles of the body by tapping them with a stick Personally he believed that it could be found in all cases of phthisis He had now one case under observation, however, in which it was well marked, where there were as yet no other physical signs of phthisis This was a boy 15 years of age, in whom myoidema was pronounced in the right infra clavicular space, and was also found, though to a much less marked degree, on the left side. As the lad had a dry, hacking cough, and the pulse and temperature were both constantly higher than normal, he said he would watch the future history of the case with great interest

Prof E G Janeway said that he had studied this phenomenon of myoidema to a sufficient extent to convince him of its unreliability as a diagnostic sign He had seen it frequently in other diseases than phthisis, and in various muscles all over the body He believed that it could often be found in emaciated subjects, whatever the cause of the loss of flesh, and thought that the only reason why it had not been so generally observed in other wasting diseases besides phthisis was because in them the physician was not ordinarily apt to tap the chest As he had just said, myoidema was not limited to the chest, and, as a rule, he had found it much more perfectly developed on the biceps and deltoid muscles than on the pectoralis major For his part, he believed it to be purely muscular

In closing the discussion Dr Hudson remarked that he wished it to be distinctly understood that the phenomenon in question was not a *muscle wave*, but a true cutaneous reflex In the paper he had been particular to say that he had sometimes seen an associated reflex muscle wave in the intercostal space, which floated away toward the shoulder until lost He thought Dr Janeway would not deny that there was a real elevation of the skin in urticaria and in cutis anserina, and since this was the case, he believed it was reasonable to suppose that the so-called myoidema was a cutaneous phenomenon Finlayson and Gairdner expressly stated that the designation "myoidema' was a misnomer For some time past Dr Booth, in the department for diseases of the nervous system at the Manhattan Eye and Ear Hospital, had examined every nervous case coming under his observation for true myoidema, and had not found it in a single instance, and as he had stated in the paper, he had himself observed it in no cases where phthisis was not present, with the exception of one or two of convalescence from typhoid fever That it was not a muscular phenomenon he thought was proved by the fact that the tumefactions were caused by striking upon the costal cartilages, where there was no muscular tissue

Dr Janeway begged to say a single word in addition He had carefully examined the photograph exhibited by Dr Hudson to be sure that the phenomenon treated of in the paper was the same thing which he himself understood by myoidema, and he found that it was precisely He thought Dr Hudson could hardly successfully deny that the fibres of the pectoralis major extended over the costal cartilages

The Carnegie Laboratory, in connection with the Bellevue Hospital Medical College, of which so much has been written, is to be formally opened next week, and the New York County Medical Association will hold its first meeting in its spacious auditorium on the 18th inst

P B P

MISCELLANEOUS

PARIS

HOUSE-INSPECTION IN PARIS —The Préfet of Police has issued the following decree A special service is to be organized for inspecting houses and apartments let furnished within the limit of the prefecture of police The territory included in the prefecture and situated outside the fortifications is divided into four districts A health inspector of furnished apartments is appointed to each district, and is obliged to visit at least once a year all furnished houses in his district All furnished houses must be visited by the house inspector before they are let, also lodgings and houses which change landlords In the case of infectious diseases breaking out in a lodging house, the health inspector pays a visit of inspection without loss of time, and makes the necessary arrangements to insure the safety of the public health In cases of illness or forced absence the visiting inspector is replaced by a colleague After each visit a report is sent in to the préfet of police A general report is to be sent in by every inspector in the month of October

INFECTION FROM WOOL-CARDING AND BED-PURIFYING WORKSHOPS —The Conseil d'Hygiène et de Salubrité Publique of the Seine discussed, at a recent meeting, a report on the danger of infectious diseases being propagated by workshops where bedding is purified and the wool recarded It was decided that such establishments should be included in the second class of unhealthy establishments, not in the third as at present Therefore, when the Minister of Commerce has sanctioned this change, the above operations will be carried on in houses where hygienic precautions are more rigorously observed It is also forbidden to recard the wool of mattresses or to beat in the streets either wool or horse hair which hås been used for stuffing furniture or beds

THE USE OF ISINGLASS IN FOODS —Le Conseil d'Hygiène et de Salubrité has raised the question whether, in the interest of public health, isinglass ought to be used by pastry cooks in making creams, an article called "Japanese Pearl," made with isinglass, is sold for making a soup which is highly esteemed As isinglass is perfectly innocent, the Conseil decided that it is not necessary to prohibit its use, nevertheless, when used in the preparation of creams and jams, the public are to be told the nature of the article they buy

WASHING LINEN IN THE SEINE —The Préfet of the Police has requested the Conseil d'Hygiene to examine the subject of the boat wash houses on the Seine, and to consider the desirability of dirty linen being washed in the river A commission has been named, consisting of M Lax, M Riche, M Larrey, M de Luynes, M Lagneau, and M Jungfleisch, to report on the question.

M BROUARDEL, Professor of Medical Jurisprudence and Lecturer on Hygiene, has been promoted to the rank of Commander of the Legion of Honor Dr Proust, General Inspector of Health, has been named Chevalier

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BURIAL REGULATIONS IN FRANCE —A prefectorial circular lately issued, directs that dead bodies are not to be conveyed beyond the limits of the prefecture, unless inclosed in an oaken coffin, of which the planks are 1¾ inch thick, the iron bands to be ½ inch wide and ¼ inch thick If the body is to be removed to a distance exceeding 200 kilometers (133 miles) the coffin is to be made of lead, ¼ inch thick It sometimes happens that when bodies are removed to a distance of 200 kilometers (133 miles) fluids and gases escape from oaken coffins This unseemly sight and overpowering odor have vividly impressed the municipal authorities, who have loudly called for a reform The Préfet of the Police, adopting the advice of the Conseil d'Hygiène, has decreed that henceforth dead bodies removed to a distance of 200 kilometers must be placed in a coffin lined with India rubber or cardboard steeped in tar

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A QUACKERY CRUSADE IN PHILADELPHIA —At a recent meeting of the Philadelphia County Medical Society steps were taken for enforcing the law against illegal practitioners The committee in charge of the matter have made arrangements for dividing the city into sections, each of which will be placed under the care of one or more members of the committee, whose duty it shall be to search out and collect evidence against illegal practitioners

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OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U S ARMY, FROM MAY 2, 1885 TO MAY 8 1885

Major Jos H Bill, Surgeon, ordered for duty as member of Army Medical Examining Board, New York City, N Y

Captain Wm G Spenser, Assistant Surgeon From Department East to Department Dakota

Captain Louis Brechemin, Assistant Surgeon From Department East to Department Platte

Captain William B Davis, Assistant Surgeon From Department Dakota to Department East (S O 100, A G O , May 2, 1885)

Major George M Sternberg, Surgeon detailed to attend, as a delegate on the part of the Government of the United States, the Sanitary Conference to be held at Rome Italy, on May 15, 1885 (S O 103, A G O , May 6, 1885)

Captain Stevens G Cowdrey, Assistant Surgeon, assigned to duty as Post Surgeon, Fort Bliss, Texas (S O 65, Department Missouri, May 2, 1885)

1st Lieut Wm H Arthur, Assistant Surgeon assigned to duty at Ft Niagara, N Y (S O 89, Department East, April 28, 1885)

1st Lieut M C Wyeth, Assistant Surgeon, ordered for temporary duty at Ft Wadsworth, N Y H (S O , 95, Department East, May 6, 1885)

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N. S. DAVIS.
PUBLISHED WEEKLY

Vol IV Chicago, May 23, 1885 No 21

THE ADDRESS IN OBSTETRICS.

A BRIEF REVIEW OF THE GROWTH OF MC'DOWELL'S OPERATION DONE AT DANVILLE, KENTUCKY, IN 1809, ITS PRESENT STATUS

Delivered April 29, 1885, in General Session of the American Medical Association

BY R S SUTTON, M D, LL D,
OF PITTSBURGH, PA

In the bleak cold of a December day, in 1809, a woman riding on horseback arrived in Danville, Kentucky She had taken farewell, perhaps forever, of relatives and friends, and had just completed a journey of sixty miles, that she might be near a surgeon who had promised to open her abdomen, and attempt to remove the large ovarian cyst it contained She was to be the subject of an experiment—an experiment at the hands of a surgeon living on the borders of civilization —an experiment which would involve her life, and to which she must submit without the blessing of chloroform or ether This woman possessed of marvellous courage was Mrs Crawford, McDowell's first patient in ovariotomy, and the first patient upon whom the operation was ever deliberately undertaken She recovered and lived to the advanced age of seventy-nine years, a period of thirty years beyond the operation

The conditions surrounding and forming part of this operation are worthy of more than a passing notice At the present time, they are declared by the ablest operators to be of more than accidental importance

In the light of all recent advances concerning the environs of an ovariotomy patient, I ask you to listen thoughtfully, and inquire of yourselves Have modern operators had better environment than McDowell did? Is their quarantine better than his was? Whether accident, or necessity, or the simplicity of border life provided these conditions so favorable to recovery, your orator will not inquire, but hopes to show that McDowell did operate under conditions as favorable as does Dr Keith or Mr Lawson Tait

1st The patient was refused operation in her own home

2d She was operated upon in Dr McDowell's own house

3d History mentions but one assistant present at the operation

4th The patient had never been tapped

5th We may safely infer that the room in which the operation was performed contained, at this early date in Kentucky, no superabundance of furniture or upholstery

6th That the room was ventilated by an open fireplace is more than probable

7th The atmosphere was that of a healthy border town

8th No sponges were introduced into the abdomen

9th He ligated the pedicle and dropped it in

This operation will stand the criticism of the most exacting specialist of the year 1885, save in two particulars, viz the ligature was not carbolized or scalded, the ends of it were left hanging out of the lower angle of the wound, and merely turning the woman on her side to permit all fluids to escape from the cavity of the abdomen was scarcely enough in that direction

The incision was made to the left of the rectus muscle, but in his next case McDowell made it in the linea alba, between the umbilicus and pubis

Pause a moment! Think, at the end of almost three-quarters of a century, the operation stands almost where McDowell left it, with one solitary exception, viz the ends of the ligature surrounding the pedicle are cut short

Restless human nature, not satisfied, sought other means of treating the pedicle, a review of which is fraught with good instruction For eleven years the operation remained in the hands of McDowell, and he adhered to ligation of the pedicle, leaving the ends of his ligature hanging out at the lower angle of the wound In 1820, Chrysmar, of Wurtemburg, tied the pedicle in two portions, leaving the ends of the ligature hanging out at the lower angle of the wound In 1821, Nathan Smith, of New England, tied the pedicle with "strips cut from a kid glove", he cut the ligature off close to the knots, and dropped the pedicle into the abdominal cavity

Neither Chrysmar nor Nathan Smith knew anything of McDowell's operations Were the teachings of Hunter and John Bell working upon other minds, as well as upon the mind of Dr McDowell? The last named sent to Mr John Bell, of Edinburgh, an account of his cases Mr Bell being then in Italy, his colleague, Mr Lizars, received the report It is probable that this record was received in 1818 For six years

Mr Lizars kept it to himself He attempted ovariotomy four times, and succeeded in one case, the patient surviving the operation seventy days In one case he opened the abdomen by an incision reaching almost from the ensiform to the pubis, and thrust his hand into an empty belly He requested every one of his students to put his hand into the abdomen, and finally exclaimed, referring to an army officer present, "Where is the military gentleman?" And had him make the same manual exploration Mr Lizars then closed the wound, *and it healed by first intention*

Owing to the fact that Mr Lizar's results were bad, twenty years elapsed before ovariotomy was again attempted in Scotland In 1846, Dr Handyside performed it Another halt of sixteen years occurred, bringing us up to 1862, at which date but one success had been attained in Scotland In that year Dr Thomas Keith did his first operation

Let us now cease the pursuit of Dr McDowell's operation, as it was reported to Mr John Bell, which report the latter did not live to see

Up to the year 1843, I find the records of only eighteen completed ovariotomies in America In this year, Dr Alexander Dunlap, of Springfield, Ohio, and Dr John L Atlee, of Lancaster, Pa, did their first cases, the latter removing both ovaries Eleven years later (1855), Dr Kimball, of Lowell, began operating These three are now the only living pioneers of the army May they live long to enjoy the distinction[1]

The operations in the United States were already numerous, and the stability of the operation secured This was before Sir Spencer Wells did his first ovariotomy

It is estimated by Peaslee that up to the last quarter of 1863, over three hundred ovariotomies had been done in this country At this date Dr Keith was only beginning in Scotland, the operation was performed for the first time in Russia, and was only a year old in Italy Twelve years after the death of Dr McDowell, in 1842, Dr Charles Clay, of Birmingham, England, did the first operation in that country, prior to this time, Jeaffreson, Walne, King, and West had each removed, by abdominal section, parovarian cysts In 1851, Baker Brown began operating in St Mary's Hospital, London, his results were not good, and the intense opposition of his colleagues drove him from the hospital, he then founded the "London Surgical Home," where his results compared favorably with those of any other surgeon of his time *It was mainly due to his action that the practice of performing ovariotomies in large hospitals, where isolation is impossible, ceased*

From Baker Brown, Nélaton learned the operation by personal observation, and, returning to France, related in a public lecture, how he had seen Brown do five cases, three of them in a single day, and thus through the influence of Brown on Nélaton, the opposition to ovariotomy in France was largely diminished In 1854, Baker Brown taught Sir Spencer Wells the operation, and in 1857, Sir Spencer did his first operation In 1864, according to Sir Spencer Wells, the operation was completely established in London, and, we may add with pride, in every country in the civilized world

But while the surgical world recognized the operation, there was a diversity of opinion with regard to the treatment of the pedicle From the date of Dr McDowell's first operation up to 1821, when Dr Nathan Smith operated, the ends of the ligature were brought out at the lower angle of the wound, Dr Smith was the first to cut the ends off For sixteen years afterward no other method was offered In 1837, Stilling, of Cassel, in the province of Hesse Nassau, Germany, used the cautery, and suggested stitching the pedicle to the wound

Nine years barren of new suggestions again elapsed, when, in 1846, Dr Handyside, of Edinburgh, Scotland, carried the ligatures through the cul-de-sac of Douglas into the vagina In 1848, Stilling treated the pedicle outside of the peritoneal cavity Two years later, in 1850, this method was inaugurated in London by Mr E W. Duffin The introduction of the extra-peritoneal method of treating the pedicle by Stilling, in 1848, began a long and serious conflict which has happily died out with the method Maisonneuve, of Paris, in 1849, had twisted the entire pedicle in one case, and Martin, of Jena, had stitched the pedicle to the wound About this time Langenbeck stitched the pedicle to the wound, and covered it with skin from the margin of the incision

Eight years later, in 1850, Dr John L Atlee, of Lancaster, Pa, introduced the écraseur to divide the pedicle He was imitated by a number of prominent operators, notably by his brother, the late Washington L Atlee, Sir Spencer Wells, Dr Keith, Professor Pope, of St Louis, U S, and Professor Billroth, of Vienna This year proved unfortunate for the operation, for during it Mr Jonathan Hutchinson invented the clamp which perpetuated the extra-peritoneal mode of treating the pedicle In 1860, Sir James Y Simpson secured the pedicle within the cavity of the abdomen by acupressure needles passed through the abdominal wall About 1865, Koeberle, of Strasburg, invented his serre-nœud, or wire constrictor, with which he grooved the pedicle prior to applying the ligature

In 1864, Mr I Baker Brown, of London, reverting to Stilling, of Cassel, established the use of the cautery, *a method rejected in London, taken up by Dr Keith, and now credited through him with the best statistics yet attained by any operator* In 1868, Masslovsky, a Russian, amputated the pedicle by double flaps, one on each side, and stitched the flaps together In 1869, Dr McLeod, of Glasgow, Scotland, by means of two pairs of strong forceps, twisted the pedicle entirely off During this year, Dr Peaslee invented a scabbard and knife by means of which the pedicle was secured, the ligature traversing the scabbard After forty-eight hours the ligature was cut by introducing the knife into the scabbard, when both ligature and scabbard were withdrawn In 1870, Dr Thomas Addis Emmett reported eighteen cases in which he had secured the pedicle by means of silver wire

Up to the present year (1885), every conceivable thing has been done with the pedicle It has been tied entire, tied in sections, been twisted off, burned off, crushed off, cut square off, cut off in flaps, left inside, left outside, and been made to slough off The extra-peritoneal method of treating the pedicle is gone The question is now resolved into the merits of the ligature cut short, the Dr Nathan Smith method, or the clamp cautery, as introduced by Mr I Baker Brown, of London, in 1864 If the clamp as devised by Mr Jonathan Hutchinson was a bad instrument, and according to Mr Tait reduced the statistics that Sir Spencer Wells should have attained, it must have similarly affected the results of those who have employed it in the United States Recently ligation and the cautery have given almost equal results

The operation of Dr McDowell, in so far as it relates to the treatment of the pedicle, is, therefore, triumphantly where he placed it, despite the ingenuity of the surgical world, having undergone but a single alteration, namely, Dr Nathan Smith's improvement of cutting the ligature short I have not been able to learn anything as to the extent to which sponges were used by the pioneer operators When Dr Keith was about to do his first operation, he had the water to be used boiled the night before, and he made everything scrupulously clean, during the operation he was surrounded by old practitioners

After removal of the cyst, he thrust a big sponge into the abdomen, and brought it out full of fluid As he was about to repeat this, one of the doctors seized his arm and exclaimed, "For God's sake don't do that again" While he hesitated, the others argued that any fluid left in the body would be a nice protection to the intestines He closed the wound Subsequently the patient did badly He at once opened the wound and let out a pint of dirty fluid, and the patient recovered From that time he advocated careful sponging after the operation, *and he was the first to insert a flat sponge under the wound while the stitches were being placed* Koeberle, who also began to operate in 1862, *introduced the compression forceps and drainage, first by short and later by long glass tubes*

I here show you the Baker Brown cautery clamp, used by Dr Keith, the compression forceps of Koeberle, *also the modification by Sir Spencer Wells*, and the drainage tubes so much in use by operators in Great Britain

The technique of McDowell's operation is, probably complete, *and its future will depend upon the subject, the place of application, and the care taken to protect the patient from extraneous sources of danger* It may be compared to a mighty oak, each decade of years having added to its greatness until its far-reaching branches furnish shelter for the thousands of men and women who require abdominal section Its ramifications are hysterectomy for fibroids, hepatotomy, cholecystotomy, normal ovariotomy, the Hegar-Tait operation for the removal of both ovaries and tubes, nephrectomy, exploratory incisions, gastrotomy, and enterotomy It still continues to grow, and the task of pointing out the leaves that have been added to its foliage during the last year requires our efforts ere they fall about the roots and contribute themselves to the growth of the parent tree

Valuable lectures and papers have been given by Dr Keith, Mr Lawson Tait, Mr Savage, Sir Spencer Wells, and Mr Bryant, all in the *British Medical Journal*

The results of valuable experiments on lower animals have been published by Prof C T Parkes, of Chicago Many successful cases of the Hegar-Tait operation, done by our countrymen and the surgeons of Great Britain, have been published in various journals

Mr Thornton has been successful in gastrotomy for the removal of a large foreign body, and has had seventeen successful cases of nephritic surgery, ten of these being nephrectomy by abdominal section Drs Keith and Bantock continue to do supra-vaginal hysterectomy with unparalleled success, and it is premised that if their success continues, it will elevate their method of operating beyond the reach of controversy They both adhere to the extra-peritoneal treatment of the stump, while the continentals practise the intra-peritoneal method

The recent visit of Mr Lawson Tait to the United States has given a great impetus to the Hegar-Tait operation for the removal of diseased tubes, and for the removal of ovaries and tubes for the cure of fibroids of the uterus

For the purpose of encouraging the conservative abdominal surgeons, *those who look carefully to the environment of their patients*, I point with great pleasure to the fine statistics of Dr John Homans, of Boston, and of Dr Robert Battey, of Georgia, whose early initiation of normal ovariotomy was suggestive eventually of the Hegar-Tait operation which included the tubes

Ovariotomy and its offshoots comprise almost all, if not the entire field, of abdominal surgery The establishment of the parent operation brought out the others, if not for the first time, it revived and established them after they had been practically abandoned "The seed was sown by Bell and Hunter, carried by McDowell and planted in Kentucky", its first growth was slow, but gathering strength from the passing years, its top has risen high, and its great branches cover a wide space, where unfortunate men and women of every land and clime gather to find relief from suffering and to acquire new leases of life

The carbolic spray is still a matter of dispute In Great Britain, Mr Thornton adheres to it as of old, Drs Keith and Bantock and Mr Tait will have none of it The latter said to me, "I sold out all my right, title, and interest in Listerism, with my tea kettle to Battey"

So far as I know, the best statistics yet obtained in ovariotomy in the United States belong to Dr Battey, of Georgia, and Dr John Homans, of Boston, Mass, both of whom operate under the carbolic spray, and in apartments kept especially for abdominal operations I make special mention of the fact that these gentlemen use the carbolic spray, for the reason that Dr Emmett says in his last edition, page 715, "I do not know of any prominent operator in this country who now uses the spray"—evidently an oversight

I do not use the spray myself, but look upon the entire Lister system, less the spray, as firmly grounded in the surgical mind Cleanliness and Listerism can never be separated, for "Listerism is the gospel of cleanliness", without the latter you cannot have the former

The year has wrapped up in its eternal folds one whose name is synonymous with the surgery of women, one whose reputation is immortal, who in America at least, stood next to McDowell, beloved by his own countrymen, and honored by the entire surgical world No eulogy of mine can increase his fame I speak of *the great, the good, the pure, the noble, the generous* Marion Sims Like McDowell, he possessed a genius for origination, and will share with him the admiration and plaudits of future generations

ORIGINAL ARTICLES.

CHOLERA.

Read in the Section of Practical Medicine, Materia Medica and Physiology, at the Annual Meeting of the American Medical Association, 1885

BY JOHN H HOLLISTER, M D,

OF CHICAGO

The fact that this disease so prominently commands the public attention everywhere, renders its discussion at the present hour peculiarly appropriate The probability, according to precedent, that it may again traverse the western continent invests it with a special interest, and by every motive that may appeal to us we are called upon as members of the medical profession to counsel the most efficient means for preventing its progress and controlling its severity

In the discussion of this subject, especially upon controverted points, I shall not presume to speak as an authority, my aim being, rather, so to present the essential points as to elicit free and full discussion on the part of the able representatives of the profession here convened

The topics germane to this discussion, it seems to me, are mainly these *Firstly* As to the origin of cholera, *Secondly* Its pathology, *Thirdly* Its manner of propagation, *Fourthly* The means for its control, *Fifthly* Its treatment

To these several subjects, with the brevity which my paper compels, let me invite your kind attention Over the origin of cholera and its dissemination—after a hundred years of rigid investigation, in which time tomes of literature upon the subject have appeared, there still hangs a mystery which invests it with fearful interest And since, in the footsteps of the epidemic invasions, such appalling fatality has followed, compared with which the wastes of wars are insignificant, it were strange indeed if the laity did not turn with deepest concern to the medical profession, imploring its utmost effort to stay the progress of the destroyer, or, failing in this, to lessen its fatality

To the proper presentation of the subject a brief historical summary seems essential

Evidently cholera is not a disease of recent origin It has been prevalent, doubtless, upon the banks of the Ganges, for untold ages Nor there alone It was accurately described by Hippocrates It is a matter of mention by Aretius of Cappadocia in his early writings As early as 1669 Sydenham speaks of its prevalence in London Huxham also refers to it there in 1741 According to French authorities, it was prevalent in Paris in 1773, and again in 1780 Lebeque describes cholera as breaking out with violence in Hindostan in 1762, and states that 800 Europeans and 30,000 natives perished in a brief period of time Dr Paisley, of the East India service, writing from Madras in 1774, states that cholera was then not only endemic in India, but that with peculiar meteorological conditions, to which I shall have occasion to refer, it was epidemic among the natives

M Sonnerat, travelling in India between the years 1774 and 1781, states that cholera was not only prevalent upon the Coromandel coast, but that at one time it assumed not only a malignant, but an epidemic form Time will permit me but in briefest manner to refer to its appearance among the British troops in Bengal, 1781 and 1782, and in the same year in the squadron of Sir Edward Hughes at Madras

April, 1783, is memorable for its outbreak in Hurdwar, upon the Ganges, where, in eight days, 20,000 pilgrims perished From 1787 to 1790 inclusive, we have the record of its prevalence in Arcot and Velore, and among the Bengal troops at Seringapatam Bell, who is quoted as an authority upon the subject, is of the opinion that the pestilences which, from time to time, prevailed in India, and which were attended by an almost incredible fatality, were but successive outbreaks of cholera, of which but meagre reports were preserved by native historians

Thus, while it is constantly asserted that epidemic cholera originated at Jessora, a large and populous town sixty-two miles north of Calcutta, in August, 1817, and from thence swept over western Europe as the first great epidemic, yet, from the records referred to and from others equally reliable, it is evident that cholera had been prevalent in India from a period antedating historic records, and doubtless successive plagues, of which we have only imperfect account, were but successive outbreaks of this disease—sometimes counting their victims by millions The often repeated statement that the first great epidemic, as it is called, originated at Jessora, needs a moment's consideration While it is asserted that it originated in Jessora August 28, 1817, it is certain that it was prevailing, even before this date, in various and distant parts of Bengal In July it had appeared in Sunergong In July it it was even prevailing as an epidemic in the distant provinces of Behar and Dacca On the 11th of July it appeared in the city of Patana, three hundred miles northwest of Calcutta, spreading from there during the month of August to all the adjacent villages On the 23d of August, five days before the invasion of Jessora, it was raging upon the further shores of the Bay of Bengal, and only a week later upon the high and distant tracts of Monghyr I have trespassed a moment upon your time to show that the assertion of its origin at Jessora needs correction

In the briefest manner possible, let me outline the march of this first epidemic, as it is termed, in its progress westward After its fearful ravages in 1817, it seemed, during January, 1818, to be nearly extinct, but in February of that year, it again developed with great violence, spreading eastward over Aracan In 1819 it devastated Maritius and in 1820 had reached the Isle of Bourbon Of its progress south along the Indian Ocean, I have not time to speak In its western course it had reached Bombay in 1818 During the two succeeding years it entered Muscat Ascending the Persian Gulf, it visited the seaport towns on either side, and from thence spread over Persia and Asiatic Turkey Its ravages in Persia were arrested by the cold winter following 1821 In 1822 and 1823 it skirted the Caspian Sea to the mouth of the Volga, where its progress was again arrested by the rigorous winter of 1823 All Europe trembled with apprehension, but at this point for six years its western march was stayed Here and there it appeared in Persia during these years, as it had done in India, but up to 1829 it had not crossed the Bosphorus But in 1829, it began to appear in the eastern provinces of Russia In 1831 it had reached the Baltic, and on June 15th of that year it first appeared at St Petersburg In August it had reached Berlin and in September it entered Vienna On the 11th of September it was at Hamburg, and in October, at Sunderland on the east shore, it first made its appearance in England

In June, 1832 it crossed the Atlantic, appearing first, as is commonly asserted, in Quebec, and was soon prevalent along the line of travel Such had been the tide of immigration that more than thirty thousand persons had landed in the Canadian provinces during the preceding three months, many impoverished and badly cared for, and among these cholera assumed extreme malignity The disease spread rapidly along the upper lakes It appeared with great fatality among the United States troops in command of General Scott in transit to the seat of the Indian war With them it reached Chicago, and westward over the prairies it seemed attendant upon the troops and all who had communication with them, until it reached Fort Armstrong, at Rock Island Thence descending the Mississippi, it visited all the river towns until it reached the Gulf Crossing the St Lawrence in the meantime it overran the state of New York, and during the summer of 1832, nearly every state in the Union suffered from its invasion

Of the epidemics that reached this country in 1848, in 1854, in 1865, and in 1873 it may be said that their manner and methods of advance were so markedly similar that the general history of one invasion would outline them all From a careful survey of these histories it seems safe to make the following deductions

I In America, cholera is not an endemic disease

II That it is only communicated from foreign countries, where and when it is there epidemic

III That it is not transported by ocean or atmospheric currents

IV That it may be in every instance, traced to infected ships arriving from infected countries, and bearing passengers developing the disease, or materials that had been previously in contact with cholera patients

V That it has never spread inland from infected ports, except along the lines of travel, and in such manner as that it might be communicated by travelers—or the transfer of contaminated materials It is not known, I think, to have appeared in any locality where absolute isolation had been secured If this be true, by so far as the avenues of travel and traffic may be closed, by so far we have it in our power to arrest the progress of the disease

No questions command the attention of the medical profession in both hemispheres at the present time as do those of the causation of cholera In the solution of these questions, the comma-bacillus is at this moment the pivotal point of controversy

Koch and his followers are confident that this specific bacillus is the producing cause He affirms that in the 100 cases of autopsy from the examinations of which he derives his conclusions, in every case he found these bacilli present in the intestines and that he did not find them in any other organs than those diseased, that they were not present in discharges from healthy persons, nor from persons affected by other diseases than cholera

He reasons also, from the fact that by the inoculation of healthy organisms with specific bacilli a specific disease may be produced, as in the instance of the baccillus tuberculosis, that therefore it is rational to conclude that cholera is developed in like manner

In furtherance of his views he affirms that in the beginnings of the disease the comma bacilli are few in number, that as it advances the colorless and odorless evacuations contain enormous quantities of comma bacilli, while other microgerms are notably diminished, and that as the excreta become more feculent they diminish in numbers, and that finally with returning health they disappear On the other hand, the French commission, of which M Straus was chairman, at the conclusion of its investigations in Egypt reported that while finding these microgerms in the cases examined, in some of them so few were present as to lead the commission to the conclusion that cholera was not attributable to the presence of these microbes even in cases in which they were most abundant

Again, Dr T Lewis, who has been for many years a resident of Calcutta, and who has made the evacuations of cholera patients for years an especial study, asserts that the so-called comma bacillus is identical in form with one which may be found in the mouth of a healthy person This affirmation the followers of Koch are inclined to deny, The crucial test of inoculation with comma bacilli, eliminated from all possible associate infection, and the production of cholera by such inoculation must be fully demonstrated before the seemingly too confident assertions of Koch can be accepted as verities Far be it from me to speak disparagingly of these investigations As never before the advocates and the opponents of the germ theory of disease are marshalled in conflict The smoke of the battle is yet too dense for us to determine where final victory shall rest, but one thing is certain From such prolonged and skilful investigations by such able observers we shall date a new era in the advancement of medical science

Whether or not we reach the conclusion that the comma bacillus is the producing cause of cholera, it is evident that there are conditions which favor the development of the disease, without which its propagation seems impossible The essentials to such development seem to be *first*, warmth, *second*, atmospheric moisture, and *third*, the presence of organic substances in process of decomposition

So far as I know the disease has rapidly diminished and even disappeared from localities where the temperature fell, and remained below 32° F It has been the common observation that a warm and moist atmosphere was present when it attained its greatest severity, and that according to the excess of earth and water pollution in that proportion and in such localities it has attained extreme malignity

The reports of surgeons in the India service are explicit upon this point From the Bengal Reports I quote from a review the following extract A disorder possessing the principal characters of cholera appears to have prevailed more or less endemically during the hot and rainy seasons of every successive year, in the lower provinces of Hindoostan, but chiefly limited in attacks to those whose constitutions had been debilitated by poor, ungenerous diet and by hard labor in the sun, and who were badly clothed, and frequently exposed in low and foul situations to the cold damp air of the night It rarely occurs during the dry months, Europeans are scarcely ever affected by it, and the better classes of natives are rarely subject to its influence A high temperature, a moist atmosphere, and accumulated filth seem essential to its development, but once, under these favoring influences, it assumes an epidemic form, such is its malignancy that it is thenceforth no respecter of persons, carrying devastation wherever it may chance to go As in a conflagration, its beginnings are the matter of chief concern, and the removal of favoring agents for its production before the deadly work commences We should be concerned for the prevention of cholera, even more than for its cure

It seems presumptuous, in passing to this next topic, that I should discuss the pathology of cholera in the presence of this learned assemblage, since you yourselves are conversant with all the facts so far as they are yet revealed And yet, the consideration of other points renders it necessary that we briefly refer to the more manifest abnormalities attendant upon this disease

We find the intestinal canal the seat of special lesion, analogous in appearance to that of intestinal catarrh Where death has occurred in the cyanotic stage the mucous membrane is thickened and œdematous, the intestines distended with fluid, turbid by reason of the countless myriads of micro-organisms developed in the decomposing fluids Necrosis of tissue is general, and the villi of the intestines are largely divested of epithelium

The mucous, submucous, and connective tissues are impacted with lymph cells The blood having largely lost its serum, fails of free circulation, and capillary stasis everywhere obtains Its corpuscles become viscous and adherent, as we would anticipate One prominent result is the failure of the proper function of the kidneys Urea is unduly retained Its toxic effects upon the nervous centres are manifest Its conversion into ammonia renders the blood strongly alkaline In cases not immediately fatal we may have resultant pathological conditions in great variety, involving mucous and serous membranes and glandular organs as well, in acute inflammations with their varied sequences From the inspection of those who died in the algid cyanotic stage, it may be difficult to discover other lesions than those of the intestines, but in protracted cases it is difficult to say what organs may not be affected, or to what extent they may be involved

With reference to the manner in which cholera is communicated, very great differences of opinion have prevailed Such have been the immunities of physicians and attendants upon the sick, that many whose opinions we are bound to respect, even to-day, stoutly affirm that cholera is not contagious and that cordons are useless

But the preponderance of conclusion is otherwise, and everywhere the conviction more and more obtains that isolation is *the* safeguard from cholera invasion

The view now nearly universally accepted is that cholera is developed by a specific poison—whether or not a living organism—and that this poison is contained in the alvine evacuations of those suffering from the disease, and that if these are properly disinfected, we may care for our cholera patients with perfect impunity

By far the greater number of observers incline to the view that the germ theory is true, and that the destruction of these germs as they leave the body would stamp out cholera

It seems to be conclusively demonstrated that after a period of time varying from a few hours to as many days if cholera dejections are exposed to warmth and moisture they so contaminate the air for limited distances that those who are susceptible and come within the infected area are smitten with the disease

Soil and water may be so polluted with these discharges as to become fruitful sources of contagion

The infection may be imprisoned for a long time and be carried long distances in clothing which has been thus soiled and dried, to be again liberated by the washerwoman, to develop the disease afresh It is a fact long since recognized that those who dwell in the midst of filth, whose foods and drinks are of impure and unwholesome qualities, those most exposed to immediate contact with sinks, closets, drains and cesspools, to water courses and surface exhalations, where cholera discharges have been deposited, are first and most to suffer in the outbreak of an epidemic And were these poverty-stricken and filthy people controlled to better sanitary conditions, by so much the facility for cholera dissemination would be diminished

If it be true, as I strongly incline to believe, that the sources of cholera are limited to the intestinal evacuations of cholera patients, and that it is not otherwise communicated, then it becomes a matter of utmost importance as to how these shall be disposed of If, by proper disinfection they may be sterilized and rendered absolutely innoxious, then indeed we have in hand the key to the question, How shall cholera be controlled?

If we have definitely settled the location of the death-producing cause, and if we are possessed of germicidal or viricidal agents which can destroy the contagious element, then but one farther question confronts us, and that is, How shall we practically apply the remedies in our hands, as to control the disease with germicidal treatment?

Here, gentlemen, we are brought face to face with a question of no ordinary magnitude It is none other than this How shall we in times of epidemics bring under proper sanitary surveillance the countless thousands of people who are constantly traversing every sea and every land as fast as steeds and steam can bear them, and how shall we adequately supervise the commerce of the two hemispheres

This is not the problem of the hour, but of the age Neither legislation nor executive action was ever so taxed as they *will be* in the final settlement of this question Whether we endeavor to estimate the value of human lives or the unnumbered millions of money involved in a widespread epidemic of cholera, we are prompted by motives which have scarcely a parallel, to the utmost of our effort, to *educate* our *rulers* and the *masses* of the *people* to the exigencies of the hour

It may be that the devastation of our fair land by this destroyer must again *be,* before the nation will adequately meet the issue, *but* so surely as cholera *shall* from time to time visit our shores, *as it will,* so surely will the American people sooner or later devise the means that shall prove effectual in the control of cholera In the accomplishment of this result nothing less than wise, efficient international sanitary legislation will meet the exigency

On the part of our government our prime concern is with our marine interests A sanitary cordon of divine construction—a sea wall 3,000 miles in breadth, is for all time interposed between us and that pestilent *hotbed* on the banks of the Ganges

The surveillance of our ships means the surveillance of our shores, the timely control of travellers and of infected merchandise means for all our broad land immunity from the disease *This* is the ideal toward which our utmost effort should be directed

And when international effort fails, and the pestilence is upon us, then it seems to me that nothing short of national sanitary control will avail to arrest its progress With national legislation, state and inter-state laws should blend and harmonize The needs discovered and fully appreciated, the counsels of eminent jurists should prevail In the presence of this question which appeals, as almost no other can, to universal philanthropy, all sectional and selfish interests should sink into insignificance There should be timely, efficient, and harmonious action among the entire sisterhood of states Each state should dominate in all its municipalities and in each municipality its local authorities should exercise a rigid surveillance of all its citizens House-to-house inspection should be made and often repeated, ample power should be appropriately vested for the abatement of all nuisances and the *control* of all who ignorantly, stupidly, or maliciously transgress the laws of health

This ideal may not and probably will not be so fully realized as to prevent the advent of cholera in the near future If not, what yet remains? I say unhesitatingly, go to the city of

New York, and *learn* and *remember* and *practise* the teachings of its Metropolitan Board of Health

Let there be a like sanitary inspection by a corps of trained men instant and alert to attend upon each and every reported suspect, with as efficient organization for the practical application of disinfectants, with the entire force subject to one central command as *instant* and *implicit* in obedience as though under military control and martial law After witnessing the results which obtained in New York in 1866, I think no man would question either the wisdom or the efficiency of their action The same general means which can accomplish so much for our cities should be wisely and efficiently applied along all lines of travel, whether coastwise, by river, or by rail A like absolute oversight should secure the cleansing and disinfection of all our cities and their suburbs until the hamlets in the open country even are thoroughly renovated

Another important duty of the hour, it seems to me, is this To properly acquaint the masses of the people with the relative values and efficiency of disinfectants, and to give simple and sufficient directions as to the manner and extent of using them

If the germicidal theory be true, doubtless signal failure would come from a too implicit trust in the use of carbolic acid, the odor of which so satisfies one as to the fact of its veritable presence and yet so signally fails to meet the requirements of a germicide If the acids and chlorine and sulphur are potent agents for disinfection, as they are, no time should be lost in acquainting all our communities with the minute details of obtaining, preparing, and using them for the purposes of successful disinfection

But when preventive means have failed and we come to meet the disease face to face, at the bedside of the patient, what yet remains for us *to do?* If there be knowledge, if there be skill, if there be at command remedial agents that can *avail*, surely there shall be no withholding at such a time as *this* To this end the experience of the medical profession is willingly, nay, gladly laid upon the altar for the good of a common humanity

Having a vivid remembrance of the consternation which possessed our people in 1832, and a somewhat extended professional acquaintance with cholera, as it appeared in this country in 1849, in 1854, in 1866, and in 1873, may I be pardoned, as I conclude this paper, if I presume to offer a few suggestions as to the treatment of this disease—suggestions for which I do not claim originality, but which have been helpful to me in many emergencies

Let me say at the *outset* that the inspirations of *hope* and of *confidence* are prime necessities They lift the man to life, while fear is swift to bring destruction The beginnings of this disease must be quickly under our control if we would hope to save our patients The commencement of intestinal disturbance should be a matter of immediate concern, before choleraic discharges are developed If it be possible to rightly diagnose the case our remedies will then be found of most avail

A hot bath for fifteen minutes, the quick envelopment of the entire body in dry, hot flannel immediately after bath, the stimulation of the cutaneous surfaces with dry mustard and with friction under cover, artificial heat so applied as to secure, if possible, free perspiration, these all conspire to divert the circulation and save from intestinal congestion From this time on the patient should be compelled absolutely to the recumbent position

The drinks should be bland and mucilaginous Cold water, notwithstanding the immoderate thirst, should be used but sparingly It will be found that hot drinks will often serve the purpose best Nothing now serves better to allay vomiting and quench the thirst than moderate draughts of hot water All food should be in liquid form and limited in amount No solid food, under any circumstances, should enter the alimentary canal The crisis will be passed in a few hours, and during that time there should be a suspension of digestion

Acidulated drinks, not alkaline, should be administered They are usually grateful to the patient and germicidal as well Of all remedies to be administered internally I hesitate not to say that opium heads the list It brings, as nothing else can do, that quietude both of mind and body so essential to success It lays its hand effectively upon the digestive organs, lessens their sensibility and insures their rest

Skilfully, cautiously, but efficiently administered, opium is the sheet anchor in which more than in all else we rest our hope In the hour of extreme exhaustion internal stimulation may be wisely associated with opium Of the stimulants camphor is the one most valuable Capsicum is sometimes of service, these rather than alkaline carbonates, or alcohol The introducture of salines and the hypodermic injection of water to replace the losses are but fanciful delusions, I think, and they are highly impracticable

Quietude of mind and body, the maintenance and equalization of temperature, the diffuse circulation of the blood, and absolute rest for the bowels—these are the essential requirements, and to these all other medication should be secondary and subsidiary The crisis passed, the convalescent is to be treated as in each instance the exigency may require With this brief reference to the origin, the pathology, the propagation, the control, and treatment of cholera, I desire to give place for the discussion which it is the purpose of this paper to elicit

Dr Austin Flint, Sr, said that in opening the discussion on epidemic cholera he would limit himself to an enumeration of the several aspects under which it is important that the subject be considered, and to a very brief expression of the views which seemed to him most consistent with our present knowledge. The several important aspects which the subject offers relate, in the first place, to the etiology and pathology of the disease, and in the second place, to prevention and treatment.

Is epidemic cholera an infectious disease? This question at once suggests itself. In other words, adopting the sense of the term infectious, as this term is now generally used, does the disease involve in its causation a specific agent capable, under favorable conditions, either within or without the body, of indefinite self-multiplication? The affirmative answer to this question will probably be accepted without the need of discussion. Is the specific cause of epidemic cholera a micro organism, that is, is cholera a parasitic disease? I do not hesitate to express the belief that the affirmative answer to this question is sustained by logical evidence which is almost, if not quite, conclusive. I use the term "logical evidence," in contradistinction to demonstrative proof. This evidence is two-fold. *First*. No other explanation harmonizes so satisfactorily with the facts pertaining to the transportation and diffusion of the special cause, the duration of epidemic invasions, and the successful measures for prevention. *Second*. Inasmuch as it has been demonstrated that the specific causes of certain of the infectious diseases are micro-organisms, it is fair to conclude, reasoning by analogy, that other infectious diseases arise from similar causative agents.

Has a specific micro organism, standing in a causative relation to epidemic cholera, been discovered? This question is likely to give rise to considerable discussion, and it is probable that different opinions will be expressed. My belief is that the evidence in behalf of the validity of the discovery by Koch is so strong as to encourage an expectation of its being, with time and fuller researches, demonstratively established. I do not propose to enter into a discussion of Koch's discovery. I shall content myself with stating the fundamental requirements for the acceptance of its validity.

First.—The so called comma bacillus must be invariably present in cases of epidemic cholera. This condition seems to lack but little in the way of demonstrative proof. The negative results are so few that they may be fairly supposed to be referable to insufficiency or unskilfulness, or bias on the part of the observers.

Second.—The comma bacillus must be wanting in the healthy body and in other diseases than epidemic cholera. With regard to this requirement, there is some discrepant testimony. There seems, however, good reason to distrust adverse testimony on the ground that the organisms found in the healthy body and in other diseases than cholera are not identical with the cholera bacillus, although morphologically similar. The characteristics incident to cultivation appear not to have been sufficiently taken into account by those who claim to have found this organism in the mouths of healthy subjects, and in the excreta of those affected with sporadic cholera, dysentery, or other diseases.

Third.—Can a disease identical with epidemic cholera be produced in animals by inoculating them with pure cultures of the cholera bacillus? With regard to this question, it is to be borne in mind that the negative results of inoculation do not constitute positive evidence against the parasitic doctrine, whereas successful results, however few in number, constitute absolute proof of the doctrine. This proof appears to have been obtained, but, in view of the liability to error in experimentation on animals, further researches in this direction are desirable.

Assuming the existence of a specific cause of epidemic cholera, irrespective of the doctrine that this cause is a micro organism, certain interesting questions relate to the pathology of the disease. Does this special cause produce its primary effect upon the blood, the intestinal affection being secondary thereto, or is the primary effect upon the alimentary canal, and the changes in the blood and in the tissues elsewhere, secondary? Are the striking symptomatic phenomena of the disease attributable to the loss of the serum of the blood, or are these phenomena due to other unknown pathological conditions? Is there ground for the doctrine advocated by George Johnson, that the intestinal dejections denote a salutary elimination of a *materies morbi*? If the specific cause be a micro-organism, in what way does this produce its pathological effects? Does it act *per se* directly upon the solids and fluids in causing these effects, or does it produce a toxic product to which these effects are attributable, as conjectured by Koch? These and other pathological questions open up too wide a field for me to enter upon in these remarks.

Passing to the practical aspects of the subject, the most important are those which relate to the prevention of cholera. First in importance are the measures for the protection against importation of the specific cause of the disease. How far shall quarantine detentions and disinfecting measures be carried? What are the most efficient agents and processes for disinfection? These are questions of great importance as bearing on the protection of communities against the disease, and also as affecting commercial interests. The public naturally and properly look to the medical profession for information as the basis of legislation and municipal acts. To prevent the diffusion of cholera whenever it obtains a foothold in any community, is an object obviously of vast importance. In connection with this object, the question arises. How is the special cause of the disease disseminated? We know that it may be conveyed in drinking water. It seems impossible, however, that this is the only mode of conveyance That the special cause may be transported in the atmosphere is probable, if not certain

Another question connected with the prevention of the disease relates to the choleraic dejections It may be assumed that these contain the special cause, but is this the only source of the infective agent? The multiplication of the infective agent doubtless may take place outside of the body Hence arises the question, What are the local conditions essential for the existence and increase of this agent after it leaves the body? Connected with this question is another, namely What are the most efficient measures for the destruction of the special cause outside of the body? To what extent and under what circumstances is the special cause disseminated by means of fomites? This is a question the importance of which is obvious As bearing on the prevention of the diffusion of the disease, an important question yet to be decided is whether the dejections in the cases of so-called *cholerine*, prevailing coincidently with cases of epidemic cholera, contain the special choleraic agent? If the answer to this question be in the affirmative, it is evident that disinfection of the dejections and other precautions are just as important in all cases of simple diarrhœa, prior to and during the prevalence of an epidemic as in well marked cases of cholera

With reference to these several questions concerning the diffusion of cholera, it is needless to say that as much knowledge as can be obtained of the nature of the special cause of the disease is desirable But, irrespective of any more knowledge in this direction than we now possess, experience has furnished facts of vast importance Experience has demonstrated that epidemic cholera may be stamped out by disinfecting and other measures adopted to prevent the diffusion of the disease For proof of the correctness of this assertion, I refer to the history of epidemic cholera as it occurred in the city of New York in 1866 and 1867 The disease in that city in the years just named was stamped out by efficient measures of disinfection and purification adopted by the Metropolitan Board of Health under the direction of the Sanitary Superintendent, the late Edward B Dalton The facts pertaining to the history of cholera in the city of New York in those years are contained in the volumes published by the state of New York in 1866 and 1867, entitled "Report of the Metropolitan Board of Health" For an account of the measures pursued and the successful results, I may refer to an article recently published in the *Philadelphia Medical News* of April 18, 1885, headed "On the Stamping out of Epidemic Cholera in the City of New York in 1866 and 1867" Another effectual method of preventing the diffusion of epidemic cholera is to employ prophylactic measures whenever the premonitory symptoms are present Epidemic cholera is generally preceded by a painless diarrhœa Experience has demonstrated that almost invariably the arrest of this premonitory event prevents the development of epidemic cholera The difficulty in the endeavor to carry out this method of prevention is to insure a prompt arrest of the premonitory diarrhœa in all cases For this end, house-to house visitations daily, or twice daily, during an epidemic, by competent medical inspectors, in order to ascertain whether any of the occupants are affected with diarrhœa, and to furnish proper instructions for relief in all cases, constitute an important measure of prevention It is probable that this measure alone, if faithfully carried out, would suffice to restrict very much the diffusion of the disease

There is reason to believe that the removal of filth of all kinds from dwellings and their surroundings, avoiding polluted drinking water, and, in short, attention to hygiene in all its public and private relations, are highly important with reference to the prevention of cholera But it is to be considered that purely unsanitary conditions will never lead to the development of this disease without the presence of the special cause Moreover, the latter may give rise to cholera under conditions which apparently are not unsanitary Important, therefore, as may be appreciable unsanitary conditions in the etiology of the disease, the specific causative agent is of greater importance Were it a matter of election whether this agent should be destroyed or these conditions removed, there could be no doubt as to the choice Of the particular conditions which promote either the dissemination or the efficiency of the special cause of cholera, we have as yet no positive knowledge, we can only direct sanitary measures against everything which may reasonably be supposed to be unsanitary

Finally, the therapeutics of epidemic cholera offer a wide scope for inquiries One thing is certain, namely, in the existing state of our knowledge, measures for the prevention of the disease are of vastly greater importance than any known therapeutical measures Experience, as I believe, warrants the assertion that of all remedies in the first stage of cholera, that is, prior to the state of collapse, opium has no competitor I believe, also, that after the occurrence of the symptoms which denote collapse, opium is to be used with very great caution The drugs and various therapeutical appliances which have been recommended in the collapse stage of cholera are innumerable Intravenous injections, to which attention has been recently directed, were tried and found unavailing in the epidemic of 1832 Not one of the countless methods of treatment has stood the test of experience With the knowledge which we now possess of the cause, the pathology, and the treatment of epidemic cholera, it is perhaps a fair statement that a patient in the advanced stage of the disease has as good, if not a better, chance of recovery, if nothing potential be done in addition to maintaining absolute rest and the introduction of fluids as freely as the stomach will retain them

Dr N S Davis, being called on by the Chairman, said that he had studied the epidemic cholera in all its aspects He had encountered the disease at the bedside, both in hospital and private practice, in all its stages and phases He had personally witnessed its beginning, progress, culmination, and decline in seven epidemic cholera seasons The simple clinical facts thus coming under his own observation were wholly irreconcilable with the popular theories of the present day, concerning the importation of its specific cause, its propagation in the form of bacilli or germs from the evacuations of cholera patients, and the consequent contagiousness of the disease

He had studied the cholera evacuations under the microscope with much patience and care, both in 1866 and in 1873 He always found an abundance of vibrios, bacteria or bacilli, especially after the evacuation had been kept from twenty-four to forty-eight hours He had still, in his library, pencil sketches of microscopic fields made in those years, containing as exact representation of Koch's comma bacillus as can be seen in any of the cuts that have appeared in the medical journals of the last two years But on extending his microscopic examinations to the serous discharges of sporadic cholera morbus and to the thin evacuations of the children having summer diarrhœa, he also found germs so similar that he could not differentiate the one from the other, and consequently regarded them as accompaniments rather than as causes of the choleraic disease He did not think the epidemic cholera any more contagious (in the sense of being communicable from one individual to another) than is intermittent fever But, like the latter disease, its origin and spread depend upon the local sanitary conditions of the soil and water, combined with persistent high atmospheric temperature He was well aware that these views would be regarded as heresy by most of those present, and did time permit he would be most happy to give in detail the facts on which they were founded But the very few minutes allowed to each speaker in these discussions precluded the statement of anything more than naked conclusions

Dr G F Jenkins, of Iowa, has noticed that a difference of opinion prevails regarding every so-called contagious disease He had even heard men doubt the contagiousness of scarlet fever He felt, however, that the profession, as guardians of the people, should give them the benefit of the doubt, and defend them in every way He did not think that any one should stand up and talk against preventive measures For treatment he would recommend the injection of salt water under the skin in different parts of the body

Dr Schauffler, of Kansas City, hoped he had misunderstood Dr Davis in saying that cholera is not imported He supposed if any question was settled it was that the cholera is an Asiatic disease Its home is on the Ganges River, and it travels only as rapidly and along such lines as human beings convey it It can not arise *de novo* in New Orleans or in Chicago Dr S was in New York as a student in 1866 and 1867 and he bore enthusiastic witness to the thoroughness and successfulness with which Dr Dalton carried out his sanitary measures at that time People were turned out of their infected houses and the buildings with their contents so thoroughly fumigated that the disease was crushed out He thought such stringent measures were easier then because the people were accustomed to bayonet rule just after the war Such methods might not be so easily prosecuted now When a boy Dr Schauffler witnessed an epidemic of cholera in Constantinople, whre it raged with terrible violence The thirst was insatiable and tormenting, but he noticed that those who resolutely refused to drink, though suffering agonies of the damned, got well, while those who drank water died He would therefore take exception to Dr Flint's allowance of fluids

Dr Joseph Jones, of New Orleans, said that he was also in New York during the cholera epidemic of 1866 and that he entertained a high opinion of the labors of Drs Dalton and Elisha Harris

Dr M K Taylor, of Fort Sill, Indian Territory, said that he had had considerable experience with cholera since 1832 During the attack of 1872 he was in north Alabama with some troops, and great good was accomplished by strict isolation and proper hygienic measures For treatment he said, "In the early stages we possess no remedy comparable with opium " But he agreed with Dr Flint that opium is not so valuable in the last stages

Dr J T Whittaker, of Cincinnati, said that he knew that cholera is a disease which multiplies in the body and is transmitted to other bodies No diseases consisting of chemical changes in the system do thus multiply or are thus transmissible In regard to the comma bacillus, however, no one claims that it is proven to be *the* bacillus of cholera Neither Koch nor any of his followers have positively stated that they think that the comma bacillus is the definite cholera bacillus It is a well known fact, however, that mild cases of cholera, apparently simple diarrhœas may contain the germs of the disease and therefore should be treated as rigorously as a severe case, especially in regard to disinfecting measures

Dr N Gay, of Columbus, Ohio, said "If you find a man in black collapse, and he can still pass a little water, put your ear to his chest, if you can still hear the regular tic tac of his heart, work with him If, however, the heart sounds are obscured you need not trouble yourself any further with him He is gone "

THE TREATMENT OF OBSTINATE VOMITING OF PREGNANCY[1]

BY AUGUSTUS P CLARKE, M D,

OF CAMBRIDGE, MASS

Of the sympathetic signs of pregnancy, no one is more common than morning sickness, and when the vomiting becomes obstinate or uncontrollable, no condition connected with the pregnant state is more depressing and exhausting to the vital powers Mention of this condition is found in the writings of the ancients Thus, Hippocrates prescribes rules respecting the remedial use of agents for this state, he says "if matters be turgid [in a state of orgasm] in the pregnant woman, she should be purged", but adds that purging is unsafe in the earlier and later stages of pregnancy By purging, Hippocrates does not mean simply the administration of purgatives, for he speaks of purging upward in the summer and downward in the winter This was done according to the ancient ideas to relieve the contents of the vessels that were ready to burst forth with plethora

Wilson Fox (Reynolds' System of Medicine, Vol III, p 48) mentions fifty-eight cases collected by Cartaya, thirty were fatal and twenty-eight were cured after abortion or the death of the fœtus—fourteen of the latter having had premature delivery induced with success One case recovered after leeches were applied to the cervix, and two recovered through the use of champagne The same author states that Bretonneau reports that much benefit was derived from friction of belladonna over the hypogastric region, and that the application of the extract to the cervix was resorted to with success In examining further the literature of the subject, the writer finds that practitioners have reached singular and different conclusions in their use of remedial agents for such sickness

Mr Edward Garraway (*British Medical Journal*, March 18, 1869, and *Retrospect*, Part 59, p 198) states that carbolic acid was the only remedy that he had found of any avail for sickness of pregnancy He gave drop doses of the crystals, liquefied by heat and diffused in half an ounce of thin mucilage, three times a day He reports two of the most noteworthy cases of other forms of sympathetic vomiting in which this agent proved no less valuable In the writer's own practice he has used carbolic acid in similar doses for its sedative influence on the gastro-intestinal mucous membrane, and for its anti-fermentative action on the contents of the *primæ viæ* An interesting case of vomiting of pregnancy treated by hypodermic injections of acetate of morphia is reported by Mr John Harrison, of Congleton, England In this case the vomiting was most severe and distressing, the paroxysms occurring at intervals seldom longer than fifteen minutes The stomach would retain absolutely nothing A grain of acetate of morphia was dissolved in ♏ vi of water and injected ♏ j three times daily The vomiting at once abated, and the patient grew stronger The dose had to be increased to ♏ xiv twice a day The treatment was continued for two or three months, but when the doses were intermitted there was invariably a tendency toward a relapse This treatment was only partially successful, for a miscarriage was determined upon and was induced by drastic purgatives and ergot Even after the fœtus was expelled the gastric irritation continued, necessitating the continuance of the morphia more or less frequently until the menses returned The skin of the forearm was pierced two hundred and sixty times The effect of the morphia was felt in the heightened spirits, toleration of food, and increased energy, but from the obstinacy of the sickness, and the necessity of continually increasing the doses, the continued exhibition of this drug became altogether unsafe

The writer has long since found by his own practice, in cases of vomiting of pregnancy, that the exhibition of morphia in any form should be resorted to only as an occasional remedy, for in one case in which he allowed the patient to use morphia in sufficient quantities to control the distressing symptoms, after a few months she acquired the habit of taking by subcutaneous injections from sixteen to twenty grains a day, and even this did not fully relieve her of the uncomfortable symptoms Mr C C Fuller, of London (*Lancet*, December 4, 1869), reports two cases of vomiting of pregnancy successfully treated by ipecacuanha, which he considered far superior to hydrocyanic acid, nitrate of potassium, oxalate of cerium, opium, nitro-muriatic acid, bismuth, alkalies, and quinine He briefly reports two cases of multiparæ, and mentions other cases which were successfully treated with this drug One case was that of a lady, aged thirty-two years, mother of five children She had suffered in all of her previous pregnancies with retching and vomiting occurring many times a day At the time that Mr Fuller was called the patient was in her fifth week of pregnancy, and the retching and vomiting were as severe as previously He prescribed a drop of wine of ipecac in a teaspoonful of water every hour, on the second day of the treatment all retching and vomiting had ceased The medicine was given afterward, as a rule, in drop doses on the occurrence of the nausea During the remainder of the pregnancy it was necessary to administer only one dose a day

J Waring Curran once highly extolled the use of oxalate of cerium, and he mentions it as having been first used by Sir James Y Simpson The following is his formula

℞ Cerii oxal
Ext lupuli āā gr xxiv
Div in pills No xij Cap j ter in die

With this he exhibited bromide of potassium in gr x doses, with the tincture of cinchona flava and spirits of ammonia The use of this mixture and the pills he regards as an admirable plan of treatment (*Med Press and Circular*, 1869)

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[1] Read before the Boston Gynæcological Society, April 9 1885

Dr S A Lucas Kirkdale, of Liverpool, speaks of the maximum doses (gr iij), of oxalate of cerium as effecting the cure of nausea of pregnancy when all other well known remedies had failed (*Medical Press and Circular*, August 4, 1869) Dr Francis Edward Image, M A (*Practitioner*, June, 1878), believes that the officinal dose of one to two grains of oxalate of cerium is useless as a rule, he advises that it be used according to Simpson in ten grain doses He regards such doses as more efficacious in restraining the nausea resulting from uterine irritation

Mr Metcalfe Johnson, of Lancaster, England (*Med Times and Gazette*, 1871), formerly used phosphate of lime for nausea of pregnancy He says that the disorders of the great sympathetic and its subjected organs are generally characterized by a dislike to all sweet flavors, and that the altered shape of the uterus, the altered nerve relations, the control of the ganglionic nerve to sustain the new vascular system to be established, cause an unusual demand upon the nervous energy Much of the neuric force is derived from phosphates The formation of the child requires phosphates for its new bones and other structures, and if these be not liberally supplied the brain and ganglionic nerves must suffer and nervous debility ensue He refers to the ganglionic system being disturbed through the stomach, and mentions the remark once made by Coleridge, that he had hope for a person who liked his pudding One thing curious to note in reading the above is the eagerness with which our author, like many others who have a new theory to advance, endeavors to maintain it by ingenious explanations He seems to forget, however, the fact that sickness of pregnancy often ceases immediately after quickening, even when there is a greater demand on the neuric forces or elements in the later stages of the fœtal existence

Dr Simmons, chief surgeon to Ken Hospital, of Yokohama (*Med Record* June, 1884), mentions having used chloral by the rectum in the vomiting of pregnancy He reports three cases In one case, the patient aged thirty years, and in the third pregnancy there was excessive vomiting which commenced during the fifth week of pregnancy and continued until the tenth week, when he was first called to attend her He used thirty grains of chloral hydrate in mucilage night and morning The second day's use of the remedy arrested the vomiting, and it returned only at long intervals Larger doses were given so as to produce a decided impression on the nervous system Its repetition but two or three times, he remarks, will often put an end to the trouble, for the time at least

The writer has found this an admirable plan of treatment, and in certain cases, in which a hypnotic in full doses is not otherwise objectionable, chloral hydrate will be of great service In several cases of vomiting of pregnancy the writer has used chloral hydrate and croton-chloral, both by injection and by suppository, with marked benefit

Dr Edward Copeman, senior physician to the Norfolk and Norwich Hospital (*British Med Journal*, May, 1875), reports three cases of obstinate vomiting of pregnancy treated by a novel method The first case occurred in June, 1874 The lady was about thirty-five years old, and was six months advanced in pregnancy As soon as the cervix was dilated so as to relieve the tension, all vomiting ceased, and she went on to the full period The results in the other cases were similar Dr Jabez Thoms, of Swansea, as early as 1868, had used one of Barnes's dilators as a means of inducing premature labor Dilatation of the cervix was also assisted by the fingers The patient became better the same day, and made rapid recovery, without further attempt at premature delivery This he considers due to the relief from the tension, as in the case reported by Dr Copeman

The writer can refer to ten cases occurring in his practice in which a similar relief was afforded by digital dilatation One case, however, was more obstinate The patient's age was twenty-three years, and she was in her first pregnancy, which had advanced to the ninth week, when the vomiting became so excessive, and was continued at intervals during day and night When he was first called, on May 25, 1881, the patient was in bed, with a large wash tub by her side, so great was the quantity of matter vomited Acetate of morphia in small doses was prescribed, but this was only partially retained, and no relief was afforded to her distressing symptoms Digital dilatation of the cervix was resorted to on the third day after the first visit This was continued for about half an hour, until the first phalanx of the index finger could be inserted into the os uteri On the next day the patient was better, and on the third day all the distressing vomiting had ceased, and she declared herself well The patient continued better, and was confined on December 27, 1880 The child was healthy, and of the normal size at full term The patient's mother said that during the afternoon of the day on which the writer made the dilatation of the cervix, the patient was easier than she had been for the past three weeks, though she was quite exhausted after the operation was finished

Though this plan of treatment has been successful, it should not be inferred that it will always be so, for gastric irritation will often remain for some time, even after the fœtus has been expelled, as was the case reported by Dr Harrison He, it will be remembered, was compelled to induce a miscarriage, but had to continue the use of hypodermic injections of acetate of morphia to relieve the gastric disturbances until the menses returned

In cases in which either lip of the os is hard and unyielding, a urethral bougie may be used The writer succeeded in one case in relieving the distressing symptoms by this means, and abortion was not induced This was once accomplished by Dr Roberts, of Portmadoc (*British Med Journal*, 1880)

The writer once heard the late Dr Anson Hooker, of East Cambridge, remark that he had often had the credit of relieving sickness of pregnancy by several different methods In one case he succeeded by forced alimentation, and in another he finally succeeded after trying many different plans, by the liberal use of Jamaica rum This Dr Hooker considered as accomplished through the influence of the imagination, or through the nervous and ganglionic centres, or, in some cases possibly, when the irritable stomach was about to commence a retrograde process

In one case, in which the patient was seven weeks pregnant, and was unwilling and too timid to allow the cervix to be dilated, the writer succeeded quite well in the use of koumiss, in small quantities, and with occasional doses of hydrobromic acid prepared according to the formula of Dr J Milner Fothergill The medicine was given in half drachm doses, four or five times a day This, according to Dr Fothergill, exercises a powerful influence over acts of reflex origin, and general nervous excitability or exhaustion (*British Med Journal*, July, 1876)

Within the past few years ingluvin has been used by American physicians, and reports of cases of vomiting of pregnancy treated by the administration of this agent have been very favorable Some six years ago (June, 1879), the writer being called to treat a case of such obstinate vomiting, resorted to the use of ingluvin The patient was twenty-six years old, and advanced in her third pregnancy to the seventh week Whatever the food swallowed, it was immediately rejected She was greatly prostrated, and her nervous system unusually depressed Five grain doses of ingluvin were given every four hours The drug acted quickly, and on the next day the patient was able to retain some light nourishment The ingluvin was continued at intervals for some weeks, and the patient rallied and went on to full term During her previous pregnancies she suffered much from morning sickness, as well as nausea, and sometimes a good deal of vomiting Her next pregnancy began about April, 1881 During the early stages of this pregnancy, from the sixth to the eleventh week, ingluvin could not be taken The vomiting became excessive There was a great deal of tenderness, simulating localized pelvic peritonitis, though there was no marked increase of temperature The patient might have been regarded as anæmic, she really was not of a plethoric habit In the treatment of this case small and frequently repeated doses of siphon soda, and the application of small blisters over the fourth and fifth dorsal vertebræ at length put an end to her distressing symptoms The application of a blister was always followed by a marked cessation of her obstinate vomiting or nausea Such application of blisters is mentioned by Alexander Harkin (*Retrospect*, Part 90, p 216) She was delivered of male twins at full term

Some authors have spoken of forced alimentation for the cure of the sickness of pregnancy, but in the cases in which such alimentation has been successful, it has been the writer's experience that the morning sickness does *not* take the place of nausea and vomiting, which last all day In the former case the treatment, to be successful, must be, not by deferring the substantial meal until mid-day or later, but medicinal agents and substantial food must be taken earlier in the day

Another means of treating vomiting of pregnancy should be briefly mentioned it is the application of the tincture of iodine to the *os uteri* The writer first learned of this means of treatment in the year 1867, from the late Dr Anson Hooker Dr Hooker, about this time, had under his care a case of obstinate vomiting of pregnancy, which finally proved fatal Obstetric writers had previously mentioned the benefit to be derived from this course of treatment The case in which the writer made use of iodine was that of primipara, aged twenty-two years, who began to suffer from vomiting on the sixth week of her pregnancy Some three applications of the common tincture sufficed to relieve the distressing symptoms, and the patient went on to the full term of her pregnancy The writer subsequently used tincture of iodine locally on the os for excessive vomiting, but having met with some untoward symptoms, was finally advised by a consultant to discontinue the practice He is now satisfied, after an extensive use of iodine as a local application in certain morbid processes of the cervix, that it is a valuable means of relieving the sickness of pregnancy He has used it within the past few years in some six cases, and in all of them the vomiting was speedily and effectually relieved Churchill's tincture of iodine, when at hand, is to be preferred Though it is desirable to make a decided impression on the cervix, it is best to be quite cautious at first, for in certain cases, in which peculiar sensibility or idiosyncracy exists, a deep ulcer or slough may be produced, which would prove very embarrassing to the medical attendant The writer cannot say that this plan is always preferable to the method of Copeman, but in certain cases it is worth while to adopt it

In the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Vol IV, No 8, p 205, will be found a report of a case of uncontrollable vomiting of pregnancy successfully treated by the use of cocaine Dr M Weiss, who recorded the case in the *Prager medicinische Wochenschrift*, states that the patient, twenty-eight years old, and pregnant for the fourth time, commenced vomiting three weeks after the last appearance of her menses (which was September 1) Previous to the administration of the cocaine no medicine seemed to give any relief, nutrient enemata could no longer sustain life, and the danger of death from inanition became imminent On November 7 there was given every half hour one small teaspoonful hydrochlorate of cocaine, in sufficient quantity of spirit of wine to make a solution of cocaine 0 15 to distilled water 150 0 Even the first doses benumbed the sense of taste The patient soon revived, and was able to retain nourishment, and by November 10 was able to leave her bed Soon after that her condition became quite satisfactory, and she was able to retain the greater part of her food After that time she was able to attend to her usual occupation The writer's experience with this agent has thus far been quite limited, and the chief objection to its use at present is its high price

Before closing this paper, the writer will briefly report two cases of excessive vomiting of pregnancy, in which abortion was resorted to with success The first case was that of Mrs C, an English lady, twenty-one years of age, who was married in September, 1867 On February 21, 1868, the writer was called to attend her She was then suffering from excessive vomiting, and could retain absolutely nothing She stated that her two sisters were greatly troubled with sickness of pregnancy She was greatly depressed, her pulse was rapid and small, sometimes exceeding one hundred and forty beats a minute The cervix was small, and the uterus somewhat anteflexed She had experienced from time to time a good deal of trouble from dysuria, and the urine contained traces of albumen Enemata of beef tea or beef essence and milk were resorted to, minute quantities of iced milk and champagne were administered by the mouth

In a short time all nourishing enemata had to be discontinued, as severe diarrhœa set in The vomiting became so aggravated that the writer was sent for early in the morning with the message that the patient was believed to be in a dying condition Dr Hooker also reached the house of the patient about the same time This was on March 1 A brief consultation was held, and it was decided that the uterus should be emptied as speedily as possible, the patient being partially collapsed The writer at once used a medium-sized gum urethal bougie (No 14, French scale), which was inserted into the *os uteri* and there left for some hours Sinapisms and hot fomentations were applied to the abdomen and extremities Sixty drops of tinctura opii in starch were given by the rectum The patient revived, on the next day the fœtus was expelled, and by means of a strong wire curette the placenta was removed After the fœtus was expelled all vomiting ceased, and the patient, though extremely weak, made a remarkably speedy recovery

The next case was that of Mrs D, an American lady, aged twenty-seven years, descended from a nervous family She had been married five years She miscarried at the third month during her first pregnancy, and had a slow recovery The second labor went on to full term, but the child was feeble and was still-born In both of these pregnancies she suffered greatly from nausea and vomiting, and during the latter pregnancy the vomiting continued more or less until the end of that term At the time the writer was called, which was on April 25, 1881, the patient was eight weeks pregnant She had been under the care of a lady physician, who had dosed and vesicated her to such an extent that little was left for further trial The temperature was subnormal, and the pulse feeble and frequent Absolutely nothing could be retained on her stomach The patient was rapidly growing weaker, and it seemed only a matter of a short time when she must succumb unless the uterus could be safely and speedily emptied It was with some difficulty that the writer succeeded in convincing his consultants that any advantage would accrue from a resort to so severe a measure, as so little hope was entertained of her recovery in any event A flexible olive-tip bougie (No 14, French scale) was inserted while the patient was in Sims's position The bougie was left in place for fourteen hours, when uterine pains began, and by means of digital dilatation the patient aborted in ten hours after the first pains commenced The bougie was passed according to the directions given by Mr John C Lucas, in a spiral direction across the fundus, the point being kept between the uterine wall and the membranes, so as to avoid violence to the latter (*Retrospect*, No 71, p 190) As soon as the placenta was expelled all vomiting ceased, and the patient made a safe and comparatively quick recovery

The condition of these two cases being so unfavorable and unpromising, serves to strengthen the conviction that no case of obstinate vomiting in pregnancy, however desperate, should be abandoned until every reasonable effort has been made to empty the uterus as speedily as possible as a last resort

MEDICAL PROGRESS.

ANATOMY AND PHYSIOLOGY

The Diagnosis of Submersion during Life or after Death —The Paris correspondent of the London *Lancet* writes that, struck with the divergence of opinion among authors as to the diagnosis of submersion having taken place during life or after death, Dr Bougier made a new study of the subject From experiments and autopsies at the morgue, he formulates the following conclusions 1 The exterior aspect of the body is about the same in both cases—that is, when the body has been submerged before or after death, the appearance of moss on the body would be of some diagnostic value. 2. Water and foreign bodies penetrate into the air passages and into the bronchial tubes of those submerged before, as well as of those immerged after death, but in the latter the foreign bodies do not go beyond the fifth or sixth divisions of the bronchial tubes, and the liquid is arrested at the bronchi of medium size by the column of compressed air, whereas, in the submerged during life, it penetrates down to the small bronchial tubes. 3. The epiglottis is vertical in the submerged, it is only half open in the corpses immerged. 4. Water penetrates in a pretty large quantity to the stomach of the former, but never to that of the latter, and in making a comparative analysis of the liquid found in the bronchial tubes, one might arrive at a certain diagnosis. 5. The same is the case with the middle ear. 6. The characteristic moss is found only in the submerged. 7. If the fluidity of the blood exists in certain cases of poisoning by opium, it is easy by the aid of the spectroscope, and by analysis, to form the diagnosis. 8. In putrefied corpses, all the signs have nearly disappeared, and the medical jurist can only draw conclusions by presumptions.—*Medical Record*, May 16, 1885.

MEDICINE

VALVULAR FRICTION SOUNDS.—DR. ANDREW H. SMITH, of New York, in an article on this subject, says: Any practitioner who is in the habit of studying carefully the sounds of the heart must observe cases in which the closure of either the mitral or the aortic valve gives rise to a sound which is not strictly a murmur, but which is also not the typical normal sound. The heart-sound, first or second, as the case may be, is slightly lengthened, and its quality undergoes a change. The first part of the sound has the normal character, while the second, which is of the briefest duration, suggests the idea of something added. This is sometimes expressed by saying that the sound is *impure*. It was formerly, and probably still is, usually attributed to slight leakage. But the addition to the normal sound differs from a regurgitant murmur in its quality, in its shorter duration, and in the abruptness of its beginning and ending. Moreover, it is often met with in cases in which there is no other sign or symptom which could be referred to valvular lesion, and in which the history presents none of the recognized antecedents of cardiac disease. Of late the diagnostic value of these impure sounds has been called in question by different authorities, but no definite explanation of their production has been given.[1]

A careful study has led me to the conviction that they are due to a readjustment of the curtains or cusps to each other after their first contact. In the case of the mitral valve, for instance, the commencement of systole throws the curtains together, but, as the systole gains in force, and the pressure of the blood becomes greater, a difference in the relative tension of the curtains would cause a slipping of one upon the other, and the production of a friction sound which, from the slightness of the motion, would be brief and abrupt. Such an inequality in the tension of the curtains would result from a difference in their area, or in the length of the tendinous cords, or in the action of the papillary muscles. In the case of the aortic valve, a slight thickening of one of the cusps would occasion a similar readjustment.

I have observed this sound at the apex most frequently in those cases in which there is an accentuated second sound at the base, or, in other words, when there is increased arterial tension. This may be explained by the greater intraventricular pressure and thus consequently increased tension of the valve curtains. In fact, I think it will be found that in a very considerable proportion of cases of contracted kidney, with increased arterial tension, the apex first sound is not pure, even though signs of decided cardiac implication may not be present.

Cases in which there is opportunity for verifying by post-mortem examination the views which I have expressed are in the nature of things rare. Still, I can recall two cases occurring some years ago, in which slight regurgitation was confidently diagnosticated by myself and others, but in which, at the autopsy, the valve was found competent by the hydrostatic test. I now believe that in these cases a valvular friction sound was mistaken for a regurgitant murmur.

This matter is important not only as a question of nice diagnosis, but as affecting prognosis and treatment. For, if we accept a given sound as possibly indicating the beginning of valvular insufficiency, we are naturally in doubt whether the insufficiency may not increase, and in the course of time the symptoms of valvular disease be developed. But if we regard the sound as produced by friction between the valve-curtains or valve-cusps, we can more confidently give a favorable prognosis, and the restraints usually imposed upon patients with valvular insufficiency will not be considered necessary.—*Medical Record*, April 18, 1885.

BUCKWHEAT FLOUR IN DIABETES.—DR. A. M. DUNCAN, of Hamler, Ohio, writes that Dr. Alvord, a retired practitioner of that place, who is a sufferer from glycosuria, finds more relief from a diet of pure buckwheat flour cakes than from anything else. While he adheres to this food the urine becomes nearly normal in quantity and quality, there is no gastric distress, and the pain in the eyes—nearly destroyed by chronic iritis,—is markedly relieved. On resuming the use of wheat bread and other starchy foods, the symptoms become aggravated, to be again relieved upon a return to buckwheat.—*Medical Record*, May 16, 1885.

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[1] Scheube. Klin. Propädeutik, 1884. Friedreich. Handb. der Sp. Path. u. Ther., Virchow. 1861.

THE

Journal of the American Medical Association.

PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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Address

Journal of the American Medical Association,
No 65 Randolph Street,
Chicago, Illinois

SATURDAY, MAY 23, 1885

CICATRIZATION IN BLOODVESSELS AFTER LIGATURE

Probably the most exhaustive paper read before the American Surgical Association in 1884 was one by Dr N Senn, of Milwaukee, entitled "Experimental Researches on Cicatrization in Bloodvessels after Ligature" The pamphlet form of this paper, now before us, occupies 117 pages with the short discussion The first forty-six pages are devoted to the history of the ligature, histology of bloodvessels, the various ligatures, and to the subject of thrombosis after ligature

How is cicatricial tissue formed in bloodvessels after ligature? It is to the consideration of this question that the paper is mainly given This process has been attributed to 1 Adhesive inflammation and plastic exudation at the seat of the ligature without reference to any histological changes 2 Fibrin 3 White blood-corpuscles 4 Red blood-corpuscles 5 Immigration corpuscles 6 Connective tissue 7 Endothelia It is of course unnecessary to dwell at any length upon the views of the authors who have advocated the various theories as to the formation of cicatricial tissue by these substances or processes After a careful review of these theories Dr Senn rejects those which attribute the formation of the cicatrix to adhesive or plastic inflammation, to fibrin, to the leucocytes or red corpuscles, to immigration corpuscles or to the endothelia or connective tissue exclusively, and holds that "the macroscopical and microscopical examination (of the specimens obtained from his experiments) are alike confirmatory of the assertion that the intra-vascular cicatrix is the exclusive product of connective tissue and endothelial proliferation

For the purposes of these experiments fifty-four experiments were made, fifty-two upon the sheep, and two on the horse The operations were all done under antiseptic precautions "The vessel sheath was always opened to the extent of an inch or more, and the artery or vein completely isolated to the same distance, when two ligatures were placed underneath the vessel The proximal was tied first in tying arteries, and the distal in the case of veins, the vessel was made bloodless by tying the second ligature in close contact with the first and by making traction upon both ends, and sliding the loop to the required distance, when the return of blood was prevented by an assistant compressing the vessel until the ligature was tied In tying the ligatures it was aimed not to injure the internal coats, but simply to approximate the inner surfaces of the intima so as to effect provisional closure of the vessel The ligatures were usually applied about one-half to one inch apart"

In these experiments suppuration occurred only eight times out of fifty-five, each time with the temporary ligature In all of these cases the vitality of the intervening portion of the vessel was partly or wholly destroyed, and when a sufficient length of time had elapsed this portion of the vessel was usually completely separated and within the abscess cavity "Secondary hæmorrhage, however, was never observed as the result of suppuration or sloughing of the intervening portion as the narrow intra-vascular cicatrix in both ends of the vessel was usually supported by a strong para-vascular ring of connective tissue which formed a part of the thick walls of the abscess" Dr Senn draws, from these facts, the following conclusions 1 All surgical operations on bloodvessels should be performed under strict antiseptic precautions for the purpose of preventing suppuration 2 In aseptic wounds the complete isolation of a vessel from its sheath for a distance of one inch is not followed by any serious disturbance of nutrition in the vessel-walls 3 Suppuration invariably produces a loss of continuity of the vessel at the seat of ligature 4 Inflammation beyond the limits of the reparative process interferes with the typical formation of the intra-vascular cicatrix He shows that thrombosis is by no means a necessary consequence of ligation, that it often fails to occur, but that its absence does not in any way prevent or retard prompt closure of the vessel In his experiments on arteries, in thirty-four cases the presence of a proximal thrombus is mentioned thirteen times to ten distal thrombi "Only in exceptional cases, both in arteries and veins, did the thrombus reach as far as the nearest collateral branch The results of these experiments render it obvious that the time-worn rule laid down in most of our text-books on surgery, which directs the operator to apply the ligature in such a manner as to leave a space of one inch or more between the ligature and the nearest proximal collateral branch for the purpose of insuring the formation of a thrombus, is wrong both in theory and in practice "

In these experiments "all ligatures were made strictly aseptic, and in all instances where suppuration did not follow the operation they were encysted irrespective of the material used Silk, silkworm gut, and horsehair were not affected by the granulating process, but were always found unchanged in the cyst In all aseptic wounds the loop of the ligature was found covered completely by the swollen adventitia after the first forty-eight hours Catgut applied itself easily and smoothly to the exterior of the vessel-walls, and by becoming softened and infiltrated with cells, it appeared to constitute a part and parcel of vessel-tissues until it was replaced by substitution by a ring of organized tissue, which served as a material support to the vessel until cicatrization was completed, thus preserving the continuity of the vessel" All other kinds of ligatures appeared to act as foreign bodies on the vessel tunics, and invariably produced a solution of continuity after a certain length of time For the following reasons, therefore, Dr Senn believes that catgut is the most desirable and efficient material for ligatures 1 If it be well prepared it will resist absorption until definitive obliteration of the vessel has taken place 2 It does not act as a foreign body, and does not destroy the continuity of the vessel 3 It is completely absorbed and replaced by organized tissue, which furnishes an additional support to the walls of the vessels at the seat of cicatrization

In summing up his paper, with a few practical suggestions, Dr Senn states that it is his belief that "all kinds of ligatures, provided they have been made aseptic, always become encysted in aseptic wounds", but that ligatures which permanently resist absorption destroy the continuity of the vessels, and therefore weaken the vessel-wall at the seat of ligation "The aseptic animal ligature possesses two distinct and important advantages over all permanent ligatures 1 It does not necessarily destroy the continuity of the vessel 2 It adds additional strength to the extra-vascular cicatrix" He is convinced that in many of his experiments the internal arterial tunics remained intact after ligation, but cicatrization progressed in a satisfactory manner 'Hence it is no longer necessary to tie the ligature so firmly as to crush the tunics of the vessels All that is necessary is to tie with sufficient force to approximate the inner surfaces of the intima with a view to insure effective provisional obliteration of the vessel" And it is readily seen that if cicatrization takes place from the fixed cells of the vascular tunics *without* the formation of a thrombus, the vessel may be safely ligated close to a collateral branch, should such a course be necessary He shows, furthermore, that the fears of making a free opening in the sheath of the vessel are groundless when the operation is done under antiseptic precautions and with the aseptic ligature, and that the free opening renders the operation safer and more easy of execution "The double aseptic catgut ligature should be preferred to the single ligature in ligating large arteries in their continuity near a collateral branch, and should be employed in all operations of tying varicose veins in their continuity, as the safest and most effective measure in producing definitive obliteration '

THE STATUS OF THE AMERICAN DOCTOR

The period of gestation of the medical colleges having been recently completed without serious accident, with the usual accompanying crop of valedictory, inaugural, graduate, and alumni addresses, all containing more or less mention of the exceedingly low status of the profession in this country, and all, without exception, giving the infallible methods of dealing with this depraved condition of the profession, it seems a very proper time to inquire as to the real state of the matter

Is the American doctor a hopeless ignoramus ? A careful reading of some four or five dozen of these addresses would probably show that he is, and furthermore, that he is becoming more so every year But should the reader, with gloomy forebodings as to the future of the people whose lives are often in the hands of this uneducated (?) mob (?), turn to the columns of our best journals, or look upon their library shelves and see the names, which in quite a number of cases, are known even outside of a county, or should they compare those names with those most prominent in other countries, or should they visit our hospitals and see the physicians and surgeons in charge—men who, as a rule, will rank with the highly educated and much-degreed medical men of other countries, he may possibly take courage, and hope that in course of time a man educated in an American institution may know quite as much as one who has been "lately fifth assistant in a Vienna Klinik"

It is just and reasonable that every thinking man should desire that medical education be carried to the highest point of perfection But all the commencement addresses that can be delivered and printed in a century will not carry it to that point The young men who listen, or are supposed to listen to them, are not in a proper frame of mind to connect the words of the addresses with their proper meanings It is very much like telling a young child who has just received a cake not to eat between meals The wholesale denunciation of the colleges is of no avail whatever, for every man thinks that he has his diploma from the best college in the country We have serious doubts if those who deliver these denunciations would admit for a moment that *they* are not possessed of a liberal medical education, they intend their remarks for those other fellows (who probably have graduated at their own colleges) They do not seem to reflect that they are casting a boomerang which will describe a curve peculiar to that weapon and strike *them* on the back of the head Those who deliver the addresses are much in the habit of advising young men not to study medicine, but if they are bent on starvation they should go to a respectable college—in other words, come to *that* college It must be particularly pleasing to a new graduate to be told that he has wasted three years in study only to starve in the end, and sometimes the very natural question will come up to him, while listening to these poetic prophesies of his future Why have *you* not starved? Medical men do not usually become millionaires (unless by marriage), but as a class they are very comfortably off

If one be desirous of higher medical education he should work for it in a reasonable way, commencing by working for state boards of health, one good board will do more than a library of "Medical Reform" addresses delivered to recent graduates who do not listen to them It would be much better to print them quietly, in a somewhat different strain, and flood the legislature with them The American title may be in very bad repute abroad—and often is Some of the European countries will not receive American diplomas as entitling to practice, and the writers of those countries look down from a very pinnacle of scorn at the title But we nave noticed that American authors, who were so unfortunate as to be miseducated (?) in American colleges, are freely and frequently quoted by those same writers And sometimes, when they come to this country as visitors they are glad to associate with men holding the despised American degree, or when they come to settle in practice they sometimes actually consult with our heathen doctors The sweeping condemnation of everything American in medicine is unreasonable, out of place, and in bad taste, and we notice that those who indulge in this condemnation, and who hold out such alluring prospects of starvation seldom practise their preaching by abandoning the profession, on the other hand, the college course being over, they often leave for an extended tour in Europe—possibly to gather materials for the next year's address There is room for medical reform in this country, but it will never be brought about by addresses which distort facts until their best friends cannot recognize them There are ignorant men in the profession in America, and there have been and are men whose names will live until medical science shall have become a myth There are bad colleges in America, but they cannot be made better by words

There is one other point in this connection it has been proposed to keep out of the profession those who have no academic degree It does seem that everyone should know that the possession of a degree from an academic institution is in no way a test as to a man's acquirements If American customs will allow medical colleges with low standards of graduation, the same must hold good for the preliminary institutions We have seen graduates of highly respectable academic colleges who could not read the Latin in which their diplomas were printed An engraved piece of parchment may mean a great deal, or it may mean nothing, so far as showing what the possessor knows Yet, strange as it may seem, those who advocate that a college diploma (in Arts) shall be required of a student, before he is admitted to the study of medicine, are very well aware that a medical diploma is no test of medical acquirements, and in many cases they are the ones who advocate that every graduate shall be examined by a state board of health before he is allowed to practise A more glaring inconsistency could not be shown If a college wishes to place a premium on academic acquirements it should require a preliminary examination regardless of the institution from which an applicant has graduated, and it should be remembered that it is not always the college with the largest numbers, nor with the greatest reputation, that turns out the best men The so-called "college education" practically stands for nothing in *estimating* knowledge, but of course it may be taken as a general rule that the college graduate has a fair education, though he should not be exempt from the preliminary examination on account of his diploma

To sum up, then, there are three, and only three, methods for raising the standard of medical education first, by strict preliminary examinations, second, by taking away from the colleges the licensing power altogether, third, though not strictly necessary, by removing the power to grant degrees from the colleges, all of which power should be vested in the state boards of examiners, chosen for proficiency and not on political grounds

A MONUMENT TO BENJAMIN RUSH

Following the editorial pages in this issue of the JOURNAL we give the report of the Committee on the Erection of a Statue to Dr Benjamin Rush It will be seen on reading this report, that the committee urge that the American Medical Association take immediate steps toward completing the arrangements for this purpose, that they recommend that an attempt be made to procure the necessary funds (about forty-five thousand dollars) by subscriptions limited to one dollar, and by voluntary donations from such persons as may be interested in this work, that it be erected in Washington, and that the committee further recommend that an attempt be made to have the work completed in such time that the dedicatory ceremonies may be held at the meeting of the International Medical Congress in 1887

It is to be hoped that, when the committee is ready to receive subscriptions, the profession will respond cheerfully and immediately The sum asked from each student and practitioner of medicine is so small, and the cause is so great, that everyone should respond gladly, in the interest and for the honor of American medicine, for by such work the profession will do more honor to itself than to the illustrious dead The report of the committee should be taken as a direct personal appeal to every physician and student of medicine, and to everyone interested in art, in the science of medicine and in commemorating the work of a great physician, a great statesman, a humanitarian, and a good man—for such was Benjamin Rush

OPERATION IN RUPTURED EXTRA-UTERINE PREGNANCY

MR LAWSON TAIT has recently reported his seventh, eighth, and ninth cases of operation for ruptured tubal pregnancy All of the operations were followed by recovery except the first "Such a series, though not a large one, is sufficient to prove that these cases may be treated with perfect success under the improved and bolder proceedings adopted in abdominal surgery within the last six years In fact, they are almost of themselves sufficient, when taken with the established fact that the great bulk of such cases have a fatal termination when left alone, to determine the propriety of immediate operation in all such cases They also confirm the views which I have already expressed, that cases of extra-uterine pregnancy are all tubal in origin arising from a ruptured tube about the tenth or twelfth week of pregnancy, at a point which is determined by the site of the placenta This explains the extreme fatality of the rupture As not a single instance of extra-uterine pregnancy at the time of rupture has been discovered other than of tubal origin, we are absolutely wanting in evidence that there is any other origin for this displacement"

Does it not seem that the time has passed when a ruptured extra-uterine pregnancy should be treated on the expectant plan? Nevertheless cases are still reported in which the usual anodynes are administered, and the usual expectant plan followed, with the usual result—death And the day has passed when the plea of uncertainty as to diagnosis may be extended, the symptoms are sufficiently grave to show that there is serious abdominal complication, and in these cases it is the duty of the surgeon to find out what it is—with the knife, if necessary

AN OPERATION FOR DISPLACED SEMILUNAR CARTILAGE

Mr Thomas Annandale describes in the *British Medical Journal*, of April 18, an operation which he has recently performed for the reduction of a dislocated semilunar cartilage Making an incision along the upper and inner border of the tibia, parallel with the anterior margin of the internal semilunar cartilage, and having secured the few bleeding vessels, he opened the joint "It was then seen that this semilunar cartilage was completely separated from its anterior attachments, and was displaced backwards about half an inch The anterior edge of the cartilage was then seized by a pair of artery catch forceps, and it was drawn forward into its natural position, and held there until three stitches of chromic catgut were passed through it and the fascia and periosteum covering the margin of the tibia The forceps were then withdrawn, the cartilage remaining securely stitched in position" The wound was then closed with catgut sutures, and a splint and plaster-of-Paris bandage applied so as to keep the joint at rest This operation was performed more than a year and a half ago, and the result thus far has been all that could be desired, it seems a very desirable operation for those cases which have resisted the other methods of treatment

ASSOCIATION ITEMS.

REPORT OF THE COMMITTEE ON THE ERECTION OF A MONUMENT TO DR BENJAMIN RUSH [1]

Your committee, charged with the duty of reporting at this meeting of the Association upon the subject of the erection of a monument to Dr Benjamin Rush, in the city of Washington, beg to submit the following as their report

The national capital already ranks among the most beautiful cities of the world The natural advantages of site and climate have been supplemented by a plan of construction that is absolutely unparalleled, its broad streets intersected diagonally by broader avenues, bordered by wide parkings and terraces, and long lines of shade trees, its open squares, triangles, circles, and reservations exceeding in aggregate area the built-up portion of the city and affording admirable locations for fountains, flower beds, and statuary, its magnificent public buildings, its great museums and libraries, the excellence of the municipal administration of the District government, the presence for so large a portion of the year of the representatives of the people in Congress, and the permanent residence of the executive departments make it especially attractive, and the various national organizations of a scientific character, which have been wandering all over the country, are gradually tending toward this as their natural centre Here, under the ægis of the federal government, they will establish the repositories of their collected works, specimens, and trophies, for which they must have a fixed abiding place, here erect mementoes of the famous men who have lent lustre to them, gained revenue for themselves and brought honor to their country

On the eve of the battle of Aboukir, Nelson said "Before to-morrow, I shall have gained a peerage or Westminster Abbey" In the language of Senator Bayard, at the unveiling of the Dupont statue, "A peerage officers of the United States are forbidden to receive, nor have we as yet in our new land a venerable repository for the ashes and memories of our distinguished dead, but there are public buildings fit to receive the statues of those who have well served the republic in any calling, and no place so proper as this city, the seat and centre of the government of the United States"

It is especially appropriate that among the adornments of the national capital, there should be the imperishable memorials of those who have aided to establish the American nation and in themselves have made the name "American" honorable among men

Much has already been done in this direction Congress is gathering in the Memorial Hall of the Capitol the statues of the founders and men of mark of the republic, each state contributing two of its most noted patriots The collection is still incomplete, but already includes the Winthrops, Samuel Adams, Hamilton, Livingston, Clinton, Roger Williams, Greene, Collamer, Fulton, Sherman, Trumbull, Baker, and William King Of the presidents Washington, Jefferson, Jackson, Lincoln, and Garfield have been commemorated by stone or metal effigies

The military and naval heroes of the country have been honored in the persons of Scott, Thomas, McPherson, Rawlings, Greene, Farragut, and Dupont The law has its representative in the recently erected monument to Chief Justice Marshall, and science has been recognized in the statue of Professor Henry in the grounds of the Smithsonian Institute, of which he was so long the distinguished director Other monumental adornments of the city are the Emancipation statue in Lincoln Park, the naval monument at the foot of the Capitol, the statues of the world's great artists, among them the American Crawford, surrounding the Corcoran art gallery, and the statue of Martin Luther on the park of the Lutheran church, overlooking Thomas Circle In addition, a liberal appropriation has just been made by Congress for the erection of a statue to Lafayette

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[1] The report submitted to the Thirty-sixth Annual Meeting of the American Medical Association, held in New Orleans in April, 1885

Painters, sculptors, generals, admirals, lawmakers, and presidents, the jurist, the scientist, and the divine have all been appropriately represented in marble and bronze Why should not medicine be likewise honored ? And, if so, who shall be chosen to represent at once the able physician and the patriot ? Your committee are of the opinion that Benjamin Rush has eminently merited this distinction A brief review of his life may make this evident to the Association

Benjamin Rush was born on the 24th of December, 1745, on a small estate belonging to his father in the township of Byberry, twelve miles northeast of Philadelphia His great-grandfather, Captain John Rush, was a native of England and had served with credit as captain of horse in the army of Cromwell, and had emigrated to Pennsylvania about the time of its first settlement by William Penn He lost his father when six years of age, and the care of his education and that of a younger brother devolved upon his mother

When nine years old, he was sent to a grammar school at Nottingham, Maryland, under the direction of his maternal uncle, the Rev Dr Findley, afterward president of the college of New Jersey at Princeton

At fourteen he was sent to Princeton, under the charge of the Rev Dr Davies, and his early education had been so thorough that he received his A B in September, 1760, when not fifteen He was first intended for the law, but Dr Findley induced him to study medicine, which he commenced under the preceptorship of Dr John Redman in Philadelphia, whose pupil he was six years, meantime attending a course by Dr Shippen When pursuing his medical studies he translated the Aphorisms of Hippocrates from the original Greek, with which he was familiar, and to his diligence as a student, then only seventeen years of age, we owe the only account we have of the epidemic of yellow fever which prevailed at Philadelphia in 1762, thus early evincing that faculty for original research which was probably in after life his greatest professional distinction

After going through the preliminary grades in medicine, he went, in 1766, to Edinburgh, then the most noted school in Europe, and after two years obtained the degree of Doctor in Medicine, his inaugural thesis, which was commended for the elegance of its diction, being in Latin and entitled "*De coctione ciborum in ventriculo*" He passed the winter of 1768 in London, and the following year in Paris, returning to his native country in 1769, when he was immediately associated with Shippen, Morgan, Bond, and Kuhn, as Professor of Chemistry in the Medical College of Philadelphia In 1789 he succeeded Dr Morgan in the Chair of Theory and Practice of Medicine, and in 1791, the college having merged into the University of Pennsylvania, he was elected Professor of the Institutes of Medicine and of Clinical Practice In 1796, on the resignation of Dr Kuhn, he received the additional Professorship of the Practice of Physic, which he held with his two previous appointments to the close of his life It is estimated that he had given instruction to more than two thousand pupils during his professional career

His repute as a teacher was not greater than his distinction as a practitioner, his ability having been eminently displayed during the yellow fever of 1793, which had appeared in 1762, and returned with unexampled malignity When urged to leave the city, he said that he would not abandon the post which Providence had assigned him, that he thought it his duty to sacrifice not only his pleasure and repose, but his life, should it be necessary, for the safety of his patients In 1786 he instituted the Philadelphia Dispensary—the first in the United States—and up to his death was one of the physicians of the Pennsylvania Hospital To his fame as a practitioner and teacher of medicine, Dr Rush has added the no less glorious distinction of having been an able writer His printed works fill seven volumes, of which six are on medicine, and the other a collection of miscellaneous essays on philosophy, morals, and literature Intensely American, his sympathies were earnestly enlisted on the side of the colonies He early began writing in defence of their rights, and in July, 1776, he was chosen a representative to the General Congress, and, pursuant to a rule of the house, subscribed his name to the Declaration of Independence "Indeed," says Dr Benjamin Lee, in his bi-centennial sketch, "the report, which as chairman of a committee of the Provincial Conference of Pennsylvania, he made upon the question as to whether it was desirable for Congress to declare independence, a report which was adopted and sent to Congress immediately, might be called a rough draft of that memorable document itself, so completely does it foreshadow all its most important features" Shortly afterward he was commissioned surgeon general of the army for the middle department, and in the summer of 1777, physician-general of the Military Hospital In 1780, he was appointed a member of the convention in Pennsylvania for the adoption of the federal constitution, which he pronounced a "masterpiece of human wisdom"

After the establishment of the federal government, he withdrew altogether from public affairs, and devoted the residue of his time to his social duties and to the exercise of his profession The only office he accepted as a reward for his many services, which he held fourteen years, was that of president of the mint

He was president of the American Society for the Abolition of Slavery, and for some time president of the Philadelphia Medical Society He was vice-president of the Philadelphia Bible

Society, and one of the vice-presidents of the American Philosophical Society, and member of many similar institutions in this country and Europe He was one of the principal agents in founding Dickinson College, at Carlisle, Pennsylvania, and an earnest advocate of the establishment of public schools He strenuously urged the abolition of public punishment, and became a member of the convention for forming a state constitution, in order the more effectually to use his influence in pressing these great reforms Of the Society for Promoting Political Inquiries, he was one of the most active members He died on the 19th of April, 1813, in the sixty-eighth year of his age, a victim of the prevailing epidemic of typhus

In Sanderson's "Lives of the Signers of the Declaration of Independence," published at Philadelphia, in 1823, from which these facts have been largely drawn, it is stated "The loss of no individual of this country, excepting Washington and Franklin, has been lamented with more universal and pathetic demonstrations of sorrow," and again "As a physician, he has left upon the age in which he lived the impress of his character and genius, in the minds of his countrymen he holds an undisputed preeminence, and amongst foreign nations it is acknowledged that the fame of Sydenham has been rivalled by the glory of Rush" Dr Lee, in the sketch before quoted, says of the physicians of the revolution "They were men at all points Their mental training had been such that they could cope with the great political questions of the day with as much ease as with the problems daily presenting in their own science and art It need be a matter of no surprise, therefore, that we find them as members of the Committee of Public Safety, members of Provincial Congresses, members of the Continental Congress, signers of the immortal Declaration, members of state legislatures and of constitutional conventions, governors of states, secretaries of state, supreme justices, major-generals in the army—in fact, in every possible position where patriotism and integrity were required to be wedded to courage, sagacity, and profound learning—as well as occupying these more strictly professional posts of honor and responsibility, surgeon-general, physician-in chief, and director-general Among them all, as Dr Toner well observes in his address on 'The Medical Men of the Revolution,' Dr Benjamin Rush stands preeminent His reputation as a teacher and patriot became national, extending far beyond colonial limits Indeed, his fame, like that of Warren, of Massachusetts, and Ramsay, of South Carolina, belongs to America"

In Delaplaine's "Repository of the Lives of Distinguished American Characters," published at Philadelphia in 1815, it is said "Considered in relation to the entire composition of his character—as a practitioner, a teacher, a philosopher, and a writer, Dr Rush must be acknowledged to have been the most distinguished physician that America has produced In no quarter of the globe has it fallen to the lot of many individuals to occupy so extensive a sphere and to comply with duties so numerous and diversified"

Zimmerman declared "La conduite a merité que non seulement la ville de Philadelphie, mais que l'humanité entière lui élève une statue" Let this Association, then, at once assume the task of erecting this statue in the name of the profession he so highly honored, and your committee do recommend

First, as to the expense of such an undertaking As accurately as can be ascertained, some of the prominent statues in Washington have cost the following sums

Equestrian statue of Washington, by Clark Mills, $50,000

Equestrian statue of Jackson, by Clark Mills, $50,000

Equestrian statue of McPherson, by L T Robisso, $48,500 (the pedestal alone costing $25,000)

The naval monument—four female figures—$40 000

Equestrian statue of Thomas, by J Q A Ward, $40,000

Equestrian statue of Greene, by H K Brown, $40,000

Equestrian statue of Scott, bv H K Brown, $20,000

Statue of Farragut, by V R Hoxie, $27,000 (of which $7,000 were for rustic base)

Emancipation statue of Lincoln, by Thos Ball, $17,000

Statue of Rawlins, by J Bailly, $12,500

Statue of Marshall, by A A Story, $40,000

Statue of Professor Henry, by W W Story, $15,000

Statue of Dupont, by Launt Thompson, $15,000

Congress has recently appropriated $50,000 for a statue of Lafayette, and $30,000 for the pedestal for a statue of Garfield The Society of the Army of the Cumberland has contracted to pay J Q A Ward $30,000 for the statue itself, of which the design is elaborate, embracing subordinate figures as well as the central one

It may, therefore, be approximately estimated that $40,000 will be sufficient, and the practical question presents itself, can the ninety thousand physicians in the United States raise $40,000 for such a purpose? If every member of the profession were to contribute only fifty cents the question would be solved, but as such unanimity is hardly to be expected, your committee have preferred to estimate that an equal number may decline as assent to their proposition, in which event from a subscription rate of only one dollar apiece the sum of forty-five thousand dollars will still accrue, and be ample to erect a monument comparable in every respect to the splendid equestrian statues of General Thomas and General Scott or the seated figure of Chief Justice Marshall

Your committee accordingly offer the following resolutions

Resolved, That this Association undertake to erect a statue to Dr Benjamin Rush in the city of Washington by the members of the profession of medicine in the United States,

Resolved, That the necessary funds for this purpose shall be obtained by subscriptions limited to one dollar from each physician and student of medicine in the United States, and by the voluntary donations of such additional sums as may be tendered by persons interested in the work,

Resolved, That a standing committee, to be styled the Rush Monument Committee, shall be appointed by the president, consisting of a chairman and a member from each state and territory, the District of Columbia, the medical corps of the U S army and U S navy, and the U S marine hospital service, of which the members resident in or near Washington shall constitute with the chairman an executive committee,

Resolved, That the necessary preliminaries of printing, advertising, postage, obtaining designs and awarding contracts shall be determined by the general committee, which shall appoint a secretary and a treasurer, and report at the annual meetings of the Association,

Resolved, That an effort be made to determine a site for the monument, so that the ceremonies of its dedication may be made coincident with the meeting of the International Medical Congress at Washington in 1887

All which is respectfully submitted on behalf of the committee

Albert L Gihon, M D, U S Navy, Washington, D C, Chairman
Henry H Smith, M D, Philadelphia
R A Kinloch, M D, Charleston, S C
S C Gordon, M D, Portland, Me
George H Rohé, M D, Baltimore, Md
John W Murphy, M D, St Paul, Minn
Morris H Henry, M D, New York

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM AN OCCASIONAL CORRESPONDENT)

The Paris Congress of French-speaking Surgeons—Tarsectomy of the Posterior Cuneiform Bone for Talipes Varus—Osteotomy and Osteoclasis for Knock-knee—A New Drainage Tube—Microbes and Diathesis—Erysipelas—Cold Abscesses—Ossifluent Abscesses—Antiseptic Dressings in Military Surgery

Last July M Demons, of Bordeaux, wrote to the Société de Chirurgie to propose a Congress of French Surgeons A commission was appointed to consider the proposition, Dr Pozzi read to the Society the report drawn up by the commission, which advocated that an "Annual Congress of French Surgeons," or a "French Congress of Surgery," or a "Congress of Surgeons Speaking the French Language," should be held The Société de Chirurgie accepted the proposition, which has borne fruit The Paris Congress of French Surgeons was inaugurated on the sixth of March at the Ecole de Médecine M Charles Trélat, professor at the Paris Faculté de Médecine, was elected President, M Ollier, of Lyons, Vice-President, M Pozzi, General Secretary, and MM Verneuil, Tilanus, E Bœckel, of Strasburg, Gross, of Nancy, A Guérin, Rochard, Baron Larrey, and Rœberlé, were elected Honorary Presidents M Trélat opened the meeting by an address in which he welcomed the members and dwelt on the importance of the Congress It numbers two hundred and fifty members, among whom, besides the Paris surgeons, are their brethren from the provinces, from Alsace and Lorraine, Belgium, Switzerland, and from Italy and other foreign countries

All who consider the question must agree that some stimulus is needed in the surgical world to do really good scientific work, and that it should not be content with making lengthy communications on such threadbare subjects as the treatment and prevention of erysipelas This was formerly a crucial question, but has long since been solved both in England and America Should the Annual Congress breathe fresh energy into the students and teachers of surgery, Dr Demons will have done good to his country The next Congress will be held in October, 1886 M Ollier, of Lyons, is elected President, and M Pozzi, General Secretary Professor Gross, of Nancy, read the first paper, on "Tarsectomy of the Posterior Cuneiform Bone in Talipes Varus" In this species of deformity the author recommends removing the astragalus and performing resection of the anterior extremity of the os calcis When the antiseptic method is adopted he does not consider the operation a dangerous one, the foot recovers its normal shape, and nearly all the movements can be executed, but this faculty and that of walking depend on the condition of the muscles prior to the operation Professor Gross believes, notwithstanding the success of the operation, that the deformity may reappear

M Demons, of Bordeaux, who may be considered as the originator of the Congress, read a paper on "Osteotomy and Osteoclasis in Knock-knee" Notwithstanding all the improvements made in the instruments for strengthening the limbs Dr Demons condemns this method of treatment, it injures the articulations and produces general disturbance, and the harm done can neither be localized nor estimated, he considers osteotomy preferable to mechanical treatment, and osteoclasis performed with M Robin's instrument preferable to osteotomy

M Houzel, of Boulogne, described a drainage tube especially fitted for wounds which require to be withdrawn from contact with the air In the portion of the tube placed in the wound there are the usual lateral apertures, the other extremity reaches beyond and below the wound, and is immersed in a receptacle containing carbolic-acid solution The tube not only allows the pus to run off but it also acts as a siphon and facilitates the evacuation of the pus from the wound When it is carefully placed the wound is covered, and an antiseptic dressing is made in order to exclude the air

M Abadie, the well known oculist, read a paper on "Microbes and Diathesis" The author believes that diathesis has only a secondary influence, and that microbes are the important factors in the local complications attending wounds He recommended that surgeons not only disinfect wounds, but the atmosphere also, an important precaution in the treatment of wounds, and not sufficiently estimated

M Cauchois chose for the subject of his communication what may be considered as the obsolete question of "Erysipelas before and after the Adoption of Antiseptic Method" His field of study was the Hôtel Dieu, at Rouen, and there, as elsewhere, the investigation proved the efficacy of the antiseptic treatment M Cauchois never isolated his patients, but depended on antiseptic measures to prevent propagation

Communications on the treatment of cold abscesses were read by three different authors M Cazin, of Boulogne, has treated them by extirpation since 1874, he dissects them out The cicatrix is scarcely apparent, and is most often linear The cure is generally early, if the antiseptic method be adopted M Bouilly has studied sixty-five cases of cold abscesses He agrees with M Cazen and M Sannelongue, that cold abscesses are tuberculous in character, and he believes that by destroying this tuberculous area certain cure may be obtained But if the lungs or viscera are tuberculous success is doubtful

M Pozzi presented a patient to the meeting as evidence of his successful method in treating cold abscesses The patient was a woman thirty-eight years of age, when a child she was scrofulous Her lungs were slightly affected, two years ago a large abscess formed on her left thigh, and this was quickly followed by another on her elbow, and one on the thorax The general condition was very bad M Pozzi freely opened the abscesses and removed the fungous growth, he cauterized the attainable surface with the thermo-cautery, and the unattainable with the zinc chloride Antiseptic and iodoform dressings were applied, partial cicatrization followed quickly, but part of the wound continued unhealed Three months afterward incisions were made wherever there was pus Scraping was again resorted to, and cauterization by the thermo-cautery and zinc chloride M Pozzi described another case of a patient, sixty-two years of age, who was also cured of several cold abscesses by the same treatment M J Bœckel, the eminent surgeon of Strasburg, in a paper on "Ossifluent Abscesses," also known as abscesses by congestion, insists on the necessity of making many free incisions, disinfecting the area attacked, removing the sac, and inserting large drainage tubes, which are replaced within a few days by short tubes, abdominal and lumbar wounds ought to be left widely gaping M Bœckel has treated seven abscesses by this method, all of which were successful, and five of which may be considered as definitely cured

M Verneuil formerly treated cold abscesses by extirpation, but has forsaken that treatment for injections into the sac of ether and iodoform solutions

A number of papers were read on "Antiseptic Dressings in Military Surgery" M Guérin quoted M Manoury's evidence that his closed wool dressing renders removal of the wounded painless, even in the most uncomfortable vehicles M Manoury was in the Russo-Turkish war

M Bousquet recommends as antiseptic agents carbolic acid, zinc chloride, and corrosive sublimate Lint and compresses should be replaced by cotton-wool, jute, and hemp M Audel recommends the ordinary antiseptic agent with occlusion of the wound, as the least that can be done in time of war, but yet sufficient He recommends the Lister dressing when possible M Bedoin strives to combine the Guérin and Lister dressings, and recommends the following formula A sheet of paper previously purified in a stove, then immersed in mercuric bichloride, carbolic or boric acid Gutta percha or a strip of India rubber completes, the dressing M Delorme considers the bundles of dressing carried by each soldier more sentimental than practical He especially recommends iodoform dressing, second in order of merit he places carbolic acid, and corrosive sublimate third v

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LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

Sir William Jenner's Illness — Headaches among School Children — Suburban Cemeteries — Sporadic Cretinism — Lectures at the Royal Institution — Mr. Lennox Browne's New Book

Sir William Jenner has been seriously ill from an attack of bronchitis which is attended by some alarming complications Dr Russell Reynolds and Sir William Gull have been in frequent attendance on Sir William, who is now going on as favorably as could be expected, but his condition excites much anxiety

Dr Crichton Browne states that headaches are increasing among children in this country attending schools where methodical and effective ventilation are carried out, and that such headaches can be traced only to the incidence of intellectual work upon brains of low educability, or badly nourished, and so easily fatigued and exhausted Headaches in children used to be rare, and were regarded as always importing organic disease of the brain, but they are now of daily occurrence

At a meeting of the Parkes Museum Sir Spencer Wells, F R C S, said that Dr Parkes, in whose memory the museum was founded, had labored to make known that branch of knowledge—hygiene or sanitary science—which, in his own words, aimed at rendering ' growth more perfect, decay less rapid, life more vigorous and death more remote" Parkes had made known many of the evils which were traceable to the burial of the dead, especially when the burial places were near large cities, and he considered contamination of air and pollution of water to an extent dangerous to the living as almost unavoidable under the present system He contended that even under proper regulations and management suburban cemeteries were injurious to the public health, and that in many of them the soil, the position with respect to neighboring houses and the sources of water supply, and the want of sufficient space were so contrary to the known sanitary requirements that they ought to be closed The only considerations that ought to weigh in the disposal of the dead were sanitary ones, and the burial in the earth was one of the most unsanitary methods which could be adopted In all towns a crematorium should be erected for the use of any whose relations preferred burning to burial He congratulated the city of London on the probability of being the first to set an example in this respect to the whole kingdom, and showed that beautiful public grounds might replace our present cemeteries, if monumental urns containing the ashes of the deceased were preserved instead of the gravestones which covered their putrefying corpses He replied to various religious and sentimental objections to cremation and read a letter from Lord Bramwell confirming the decision of more than one judge, that it was perfectly legal

A case of sporadic cretinism the cause of which, whatever it might be, must have been transient and accidental rather than due to locality inhabited, or the parents' health, since all the other eight children born of the marriage were perfectly healthy, was exhibited at a meeting of the Clinical Society by Dr Sidney Phillips The patient was a child, aged 10¼ years There was no history of rickets, syphilis, or tubercle in the family Two months previous to the birth of the child, the mother received a severe fright from a fall of a child into a well Labor was natural and no forceps were used There was nothing unnatural exhibited by the child until it was nine months old At the present time the child weighs 26 or 27 lbs, and is 2 ft 7¾ in high There was seen to be large masses of fatty tissue above either clavicle, the hair scanty, the voice croaking, the head very large, the anterior fontanelle unclosed, and the thyroid gland was absent The child, though able to walk, was unsteady on the legs, and there was marked lordosis She was intellectually childish, but good-tempered, and her mental condition was mainly remarkable for the extreme torpidity and hebetude Besides these symptoms, the limbs and face were œdematous, but firm, they pitted on firm pressure, but the pitting disappeared more quickly than in cases of dropsy The feet were short and square, the limbs very much enlarged, the hands spade-like, and the tongue was also enlarged Besides other signs of cretinism, Dr Phillips pointed out there was in the subject a condition present much allied to, if not identical with, the disease known as myxœdema That the mental condition was somewhat different from that in myxœdematous adults, was accounted for by the early age at which it came on, before the mind had had time to become developed It was also pointed out that ten cases of a similar nature had now been recorded, two of them by Mr Curling, four by the late Dr Hilton Fagge, and one each by Dr Fletcher Beach, Dr Langdon Down, and Dr Routh On examining the records of these, it appeared that six of the ten cases presented signs, more or less marked, of an œdematous state, and Dr Phillips pointed out that it was not, therefore, an exceptional occurrence in association with myxœdema, but must be looked upon as part and parcel of the disease Foderé's opinion, that cretinous infants mostly became œdematous, bore this out Experimental removal of the thyroid had been shown by Kocher to produce cretinism in human beings Mr Horsley had produced myxœdema in monkeys by ablation of the gland, it was therefore to be expected that myxœdema would occur with other cretin symptoms, where the thyroid gland was deficient There was no evidence as to what caused this deficiency of thyroid gland in the present case, but this was the third out of ten cases in which there was a history of fright during pregnancy

The following arrangements for lectures at the Royal Institution of Great Britain have been announced Professor Arthur Gamgee, M D, F R S, eight lectures on Digestion and Nutrition, Professor C Meymott Tidy, M B, F C S, three lectures on Poisons in Relation to their Chemical Constitution and to Vital Functions, Professor William Odling lectures on Organic Septics and Antiseptics

Mr Lennox Browne has published a new work on "Voice Use and Stimulants" Despite common practice Mr Lennox Browne holds that alcoholic stimulants have a most injurious effect upon the larynx and pharynx G O M

DOMESTIC CORRESPONDENCE.

A CASE OF ACUTE LEUCOCYTHÆMIA

EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Dear Sir,—On the 18th of November, 1884, Ferdinand Schucknecht, a German aged 20 years, consulted me for a swelling of his neck He was a heavy, hearty-looking young man of robust appearance, apparently in the enjoyment of excellent health

On examination I found a prominent enlargement of the submaxillary and cervical glands of both sides about equally, meeting, though less prominent, underneath the chin The growth was painless, hard, and not tender to pressure There were no enlargements of other glands noticeable The appetite was good, no feeling of sickness whatever The glandular swelling remained *in statu quo* for as many as ten days, when there was some swelling of the inguinal glands also Soon the mesenteric glands became enlarged and increased in size rapidly, distending the abdomen and crowding up the diaphragm, interfering seriously with the patient's breathing when in the recumbent posture The spleen also partook of the general enlargement quite extensively There was repeated copious hæmorrhage from the nose, which required to be kept in check by plugging the nares The patient became pallid, anæmic, and sank rapidly, dying January 12, 1885

An examination of the patient's blood three days before death, by Dr Cutler, showed the proportion of white to red corpuscles greatly increased—about one to thirty or forty of red

J B STAIR, M D

Spring Green, Wis, May 10, 1885

DISCLAIMER

EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Dear Sir,—Lest any misconception might arise, I would like to say that the photograph sent and figured on page 396 of the JOURNAL was from a pathological specimen presented before the Eau Claire County Medical Association by Dr Harold Groff, and reported by me as Secretary of the Association

Yours Respectfully,

CHAS E HOGEBOOM

Eau Claire, Wis, May 15, 1885

BOOK REVIEWS.

A TREATISE ON ABDOMINAL PALPITATION, AS APPLIED TO OBSTETRICS, AND VERSION BY EXTERNAL MANIPULATIONS By A PINARD, Associate Professor in the Faculty of Medicine of Paris, former Chef of the Obstetrical Clinic, etc With 29 woodcuts inserted in the text Paris, 1878 Translated by L E Neale, M D, Chef of the Obstetrical Clinic and Demonstrator of Obstetrics in the University of Maryland 8vo, pp 101 New York J H Vail & Co, 1885

Important as is the subject of abdominal palpitation in the diagnosis of pregnancy, and of positions and presentations, it is one of which but very little is known or taught in this country Pinard's little work on the subject has been the authority in France since its first appearance, and it is with pleasure that we notice this translation by one so well qualified to make a clear translation as Dr Neale The cuts are well made and are faithful representations of those in the original edition We find it necessary to quarrel with both translator and publisher, however, because the book contains neither table of contents nor index The former may be omitted, the latter may not, if a book is supposed to make a respectable appearance The utility of an index is so apparent that it is a source of astonishment that a publisher will sometimes allow any book to go out from his house without one, and in this day, when even some of the larger newspapers have a table of contents to each number, it seems that the omission of so important a part of a book as the index is absolutely inexcusable on any ground—even of laziness

THE STUDENTS' MANUAL OF HISTOLOGY FOR THE USE OF STUDENTS, PRACTITIONERS AND MICROSCOPISTS THIRD EDITION ENTIRELY REWRITTEN, GREATLY ENLARGED, AND NEWLY ILLUSTRATED By CHARLES H STOWELL, M D, F R M S, Professor of Histology and Microscopy, and in charge of the Histological Laboratory of the University of Michigan Illustrated by 178 engravings 8vo, pp 368 Ann Arbor, Mich Charles H Stowell, Publisher 1884

That there is room for this work on Histology is shown by the fact that two editions have been exhausted since March, 1881 As the book has been before the public so favorably for the past four years it is scarcely necessary to enter into an extended notice of it, it is quite sufficient to say that the author has not allowed anything new, which may be of the least value to the student of histology, to escape his notice, nor has he failed to record it in his book His style is perfectly clear, and it is almost sufficient to read its pages in order to fall thoroughly in love with the subject Of the many illustrations there are some which would be greatly improved by better press work, and the paper might be improved upon, but considering the excellence of the book in its more important particulars, these are very minor faults The work is completed by an excellent index, and by blank pages for laboratory notes

OFFICIAL REGISTER OF PHYSICIANS AND MIDWIVES NOW IN PRACTICE, TO WHOM CERTIFICATES HAVE BEEN ISSUED BY THE STATE BOARD OF HEALTH OF ILLINOIS, 1877-1884 Chicago W T Keener, 1884

On account of the limited edition of this Official Register authorized to be printed, the State Board of Health of Illinois has arranged with Mr Keener, of Chicago, to publish an edition to supply the demand from without the state The volume contains The Illinois Practice Act, The State Board of Health Act, Concerning Practitioners and the Mode of Procedure under the Medical Practice Act, Schedule of Minimum Requirements, Official Register of Physicians and Midwives, List of Revoked Certificates, and many other useful data concerning medical practice in Illinois

MISCELLANEOUS.

SANITARY CONVENTION AT YPSILANTI, MICHIGAN —Arrangements have been made by a local committee of citizens of Ypsilanti, acting with a committee of the State Board of Health, to hold a Sanitary Convention in Ypsilanti, Michigan, on Tuesday and Wednesday, June 30 and July 1, 1885

Sessions—There will be sessions the first day at 2 00 P M and 7 30 P M, on the second day at 9 A M, 2 P M, and 7 30 P M, local time At each session of the Convention there will be addresses or papers on subjects of general interest pertaining to public health The admission to all sessions of this Convention will be free, and the ladies are cordially invited The invitation is especially extended to health officers to be present and take part in the discussions The objects of the Convention are the presentation of facts, the comparison of views, and the discussion of methods relating to the prevention of sickness and deaths, and the improvement of the conditions of living

Among the subjects which it is expected will be presented and discussed are the following

1 The present and future water supply of Ypsilanti, its relations to health and to sickness from certain diseases
2 Disposal of slops and garbage
3 Drainage and sewerage of Ypsilanti
4 Causes of malaria in Ypsilanti
5
6 Prevention of communicable diseases
7 Limitations and duties of local boards of health
8 Sanitary condition and needs of school buildings and grounds
9 Practical details of management of earth closets
10 Influence of sewerage and drainage upon the death rate in cities
11 Moral effects of sanitation

The papers are expected to be original contributions, which when read are to be considered the property of the Convention, and to be left with the Secretary Programmes will be issued before the Convention

A F KINNE, M D, *Secretary*,
Ypsilanti, Michigan

BRAISE —MM GUÉRIN-ROZE and DUGUET, at a meeting of the Société Médicale des Hôpitaux, described three cases of lead poisoning resulting from handling chemical *braise* *Braise* is a special kind of charred wood sold only by bakers, it is nothing else than the burned wood remaining in the furnaces after the fire is extinguished The women attacked by lead poisoning dried and packed braise which had been steeped in lead nitrate All the workers were perfectly healthy before working in a factory of chemical braise, and most of them continued so until the workshop, which was a large, airy room on the third floor, was removed to a small, ill-ventilated room underground People who eat meat grilled over fires of braise thus prepared are liable to lead poisoning, also tailors who use this braise for their hollow irons M Labbé has observed lead poisoning produced by eating bread which had been baked over wood painted with lead pigments

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CHOLERA PRECAUTIONS IN ENGLAND — The English Local Government Board is at present hard at work seeing that precautions are taken to prevent the spread of cholera, should it make its appearance Dr De Chaumont has been visiting Poplar on behalf of the government, his desire is that all patients should be moved into hospitals, and that no patient should be moved more than a mile

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DR JOHN J SPEED, the well known physician of Louisville, died at his home in that city on May 6, in the sixty-ninth year of his age

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OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U S ARMY, FROM MAY 9, 1885 TO MAY 15 1885

A board of medical officers to consist of Lieut -Col A K Smith, Surgeon Major J C G Happersett, Surgeon, Capt Jas P Kimball, Assistant Surgeon, appointed to assemble at U S Mil Academy West Point, N Y on June 1, 1885 to examine into the physical qualifications of the members of the graduating class, and the candidates for admission to the academy (S O 106 A G O, May 9 1885)

Major Jas C McKee Surgeon, sick leave of absence still further extended four months, on surgeon's certificate of disability (S O 105, A G O, May 8, 1885)

Major Justus M Brown, Surgeon, from Department East to Department Platte

Captain Calvin De Witt, Assistant Surgeon, ordered to Department East (S O 105, A G O, May 8, 1885)

Captain Joseph K Corson Assistant Surgeon leave of absence extended ten days (S O 109, A G O, May 13, 1885)

Captain A A De Loffre, Assistant Surgeon, assigned to duty at Fort Sisseton, D T (S O 46, Department Dakota, May 4, 1885)

Captain John J Kane, Assistant Surgeon leave of absence for seven days extended one month (S O 109, A G O May 13, 1885)

First Lieut E C Carter, Assistant Surgeon, leave of absence extended one month (S O 106, A G O, May 9, 1885)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED MAY 16, 1885

Fessenden, C S D, Surgeon, granted leave of absence for thirty days, May 12, 1885

Goldsborough, C B, Passed Assistant Surgeon, to proceed to Moss Point, Miss, for special duty, May 16, 1884

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY

Vol IV | Chicago, May 30, 1885 | No 22

ORIGINAL ARTICLES.

FALSE DOCTRINE IN THE TREATMENT OF FRACTURES[1]

BY JOHN B ROBERTS, M D ,

PROFESSOR OF ANATOMY AND SURGERY IN THE PHILADELPHIA POLYCLINIC

It is my desire to call attention to some points in connection with the treatment of fractures which I believe to be errors, but which I think are accepted as axiomatic truths by many members of the profession That discussion may lead to an interchange of views and perhaps be effective in correcting these erroneous traditions, if they be erroneous, is my object in presenting this paper

The idea is entertained by many that every fracture of the extremities should be treated by a special splint or apparatus The simplicity with which fractures are treated by us in the Philadelphia hospitals has often caused surprise to those practitioners who come to us for post-graduate instruction Their previous teaching or reading has evidently created the mistaken impression that complicated special devices are essential for each locality of broken bone The fact that treating a fracture is a simple mechanical problem capable of solution by any device that will secure correct apposition and immobilization, while at the same time inflammatory conditions are presented, is not recognized

The quite frequent use of a bandage, next to the skin, before the splint is applied to the extremity is due to false teaching, and is fraught with danger because of the possibility of its causing unexpected constriction in the event of rapid inflammatory swelling This primary bandaging has been advocated to prevent swelling and muscular spasm That it does either to any beneficial extent is doubtful We possess other and less dangerous methods that are more effectual for such purposes

It is quite commonly believed that ensheathing callus is one of the essentials of proper union after fracture, while the truth seems to be that ensheathing callus is seldom found except in fractures of the ribs and other fractures where immobilization of the fragments is imperfectly accomplished A fracture so held in proper coaptation that motion cannot occur heals without ensheathing callus in nearly all instances Cicatrization goes on in bone wounds essentially as it does in wounds of soft parts

Early institution of passive motion during the treatment of fractures near joints or involving joints is still insisted upon by many practitioners One of the greatest sources of anxiety to the young or inexperienced doctor is to know when to begin passive motion He fears to begin too early lest he disturb the process of union, he dreads to leave it too late lest he have an anchylosed limb as the result of his tardiness The proper course, it seems to me, is something like this If the joint is involved in the line of fracture passive motion at an early stage will not prevent anchylosis, but may increase it by causing a greater degree of arthritis, if the joint is not invaded by the fracture line, early passive motion is not needed, because anchylosis will not occur unless violent inflammation of the soft parts arises, which inflammation passive motion is more likely to increase than to decrease In accordance with this view I advise that no passive motion be made earlier than three or four weeks in any case The adoption of passive motion earlier than this has often in energetic but injudicious hands given much unnecessary pain, and perhaps in many cases increased the arthritis and subsequent stiffness The degree of restoration of function possible after articular fractures is only determinable after many weeks Passive motion should certainly not be commenced while arthritis is acute, and not as a rule until union of the fracture is pretty well accomplished When it is attempted the occurrence of arthritic reaction is an indication that it must be still longer postponed

Splints and dressings are often continued too long, and thereby the disability of the patient for attending to his business prolonged In uncomplicated fracture of the tibia and fibula the patient should be able to go on crutches to his store or office in two or three weeks, provided that a silicate of sodium or a gypsum dressing has been applied After fracture of the fibula of ordinary severity one week's confinement to the house is sufficient, provided that some supportive dressing be thereafter worn, and crutches used The usual uncomminuted fracture of the lower end of the radius needs no splint after ten days or two weeks Although, of course, function is not perfectly restored, the hand and fingers can be used for many purposes involving little muscular effort While not wishing to advocate rapid convalescence when caution requires a few days' additional confinement, I hold that it is improper to keep a patient from pursuits that need his attention, merely because of the traditional idea that a fracture means six weeks' enforced idleness Loss of money, mental anxiety, and continued disappointment of business connections are penalties too great to endure because of a tardy convalescence insisted upon by routine practice

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[1] Read in the Section on Anatomy and Surgery, in New Orleans, April 28, 1885

It is false doctrine that still insists upon the great risk incurred when a closed fracture of the cranium is converted by the surgeon into an open one, in order to explore supposed dangerous characteristics which, if present, threaten life from probable secondary encephalic inflammation The possibility of septic infection is increased, I admit, but so little that the danger of obscurity in diagnosis and consequent erroneous treatment is often much greater

Fractures of the nose have long been, and still are, often treated by useless dressings The conventional application to broken nasal bones is a strip of adhesive plaster placed across the bridge of the nose with the idea that it will by its adhesion to the skin hold the broken fragment upward, and prevent depression of the nasal arch That it is quite impossible for a flexible tissue like adhesive plaster to act in this manner will be recognized with the mere statement If comminution tends to allow displacement, the plaster will not give sufficient rigidity to obviate the tendency If it does no good, why disfigure the patient by making him wear it? The proper method of retaining fragments in position when great tendency to displacement exists, is by transfixing pins, but as the object of this paper is not to deal with plans of treatment, I shall not discuss the procedure at this time Another custom quite prevalent is to put tubes in the nostrils after nasal fractures or operations, when we all would prefer mouth breathing to wearing nasal canulas, which are unsightly, uncomfortable, dirty, and which as a rule soon become clogged Breathing through the mouth for a few days is easily borne when an acute nasal catarrh is contracted, therefore its performance after nasal injuries is not intolerable If a plug is required in the nostril to maintain position of the fragments let it be introduced, and let it be a tube if you choose, but it will usually become clogged and offensive A solid plug will in most instances be more cleanly

Deformities of the nasal bones and cartilages often become permanent after fracturing injuries because it is believed that there is little relief for the displacement Properly conducted surgical treatment at the beginning or operative measures afterward will relieve much of the unhappiness resulting from unseemly lateral deviations and irregular distortions of the nose The importance of this feature in the facial lines renders defects in conformation so noticeable that in hypersensitive persons mental characteristics are often due to nasal deformity in childhood It may be remembered that a commander of ancient times gave the order "aim at their noses" knowing that the enemy feared facil disfigurement more than actual death The false doctrines prevalent concerning nasal fractures should therefore meet an early overthrow It is more important to treat a broken nose well than a broken leg

The use of the axillary pad in treating fractured clavicle is of little or no value The important factor in the treatment is to so fix the inferior angle of the scapula, that the scapula cannot slide forward upon the lateral wall of the thorax, as it tends to do, because the clavicle, which is its only bony attachment to the trunk, is broken Displacement of the fragments in broken clavicle is to be prevented by steadying the lower end of the scapula and not by an axillary pad which is ineffectual as a fulcrum against which to use the humerus as a lever to throw the acromial end of the clavicle outwards and backwards The axillary pad is useless unless large and hard, if large and hard it cannot be worn without discomfort, that would usually be accompanied by danger of injurious pressure to soft parts

The employment of an internal angular splint for fractures in the vicinity of the surgical neck of the humerus is founded on false premises The axillary muscles prevent the upper end of the splint extending high enough into the axilla to control the upper fragment Hence the splint does not keep the upper fragment at rest, and, by its projection beyond the elbow or hand, gives more leverage by which unexpected blows may cause motion of the lower fragment It is better to use the thorax as a splint, and bandage the arm to the chest with perhaps a small amount of packing, such as absorbent cotton or lint, in the axilla to steady the upper fragment

The fallacy of treating fractures of the condyles of the humerus by anterior or posterior rigid angular splints, and thereby causing deformity and disability by impairing the external angular deviation of the axis of the upper extremity, was shown by Allis four years ago (Transactions of Medical Society, State of Pennsylvania, 1881) Yet this is probably the method by which such fractures are treated by most of the members present to day The loss of the carrying power of the arm after treatment of condyloid fracture by such splints, is, I have no doubt, a common experience, though many may not have recognized the cause

In fractures at the middle of the forearm, interosseous pads are seldom, if ever, required if the fragments are moulded into proper position and the forearm is put in a position midway between pronation and supination The interosseous space cannot easily be preserved by the use of an interosseous compress, if moulding and the position mentioned will not do it The bones are too much enveloped in muscles to be controlled by a superficial pad, even if it is long and narrow and hard At least such will be found the case in most instances A lamentable practice, founded on false doctrine, is the use of a straight, that is flat, splint for the ordinary fracture of the lower end of the radius The palmar surface of the lower third of the radius is concave, therefore the splint must be curved Yet the practice of employing a Bond's splint or some other form of flat splint is common A convex splint or a splint with a hard pad, with a convex upper surface, is the only form of a splint proper to use on the palmar aspect of the fracture A straight splint will do well on the dorsal, but not on the palmar surface Use, therefore, either a curved palmar or a straight dorsal splint if you desire cure with the least possible deformity The stiffness of fingers and deformity, so frequently seen after these fractures, are due to imperfect reduction of the fragments and improper splints In many cases reduction without the application of any splint will give better results than reduction with the use of a flat splint

The teaching that fractures of the shafts of metacarpal bones should be treated by palmar splints, may not be universal, but it is, I think, very common In oblique fractures the deformity can often be overcome best by continuous extension adjusted to the finger by means of adhesive plaster, as is done in fractures of the femur Strips of adhesive plaster attached to the finger and an extending cord, preferably of rubber, fastened to a splint placed under the wrist and palm and extending beyond the finger tips is a serviceable dressing for correcting overriding in metacarpal fractures

The habit of measuring the length of the lower extremities in suspected fracture of the femur is founded on a mistaken impression that the legs are of the same length The frequent asymmetry in length of normal limbs has been so often demonstrated that it is surprising to see surgeons constantly employ this as a method of diagnosis Even if the legs were known to be of equal length the measurement would probably be inaccurate, because of the difficulty of avoiding tilting of the pelvis and of applying the tape to exactly similar points on each side When it is known that normal legs differ in length, the folly of placing any diagnostic dependence on the figures obtained is apparent

The disability liable to follow fractures of the femoral neck in patients beyond middle life, is not as great as it is often stated to be Whether this is due to a mistaken diagnosis between intracapsular and extracapsular fracture, I know not, but I am convinced that the impression prevails to a great extent among the profession, that fracture of the neck of the femur in an old person means almost helpless lameness Such is not the case Very good use of the limb quite frequently happens

In oblique fractures of the legs with overlapping reduction can at times be facilitated by tenotomy of the tendo Achillis This means of overcoming displacing muscular action is perhaps not as often resorted to as it should be

Extension by traction applied to the head and legs should be better known, I think, as a possible method of reducing fractures of the vertebræ In many cases it will do no good, but in others it may

The aversion to applying coapting hooks to the patella and olecranon, when apposition is otherwise impossible, is, in my opinion, the result of false teaching and observation

There are many points of this character upon which I might dwell, but I have said enough to indicate my disbelief in many of the popular traditions of surgical practice I shall now wait to hear in the discussion that will follow, what justification for my beliefs or disbeliefs I can get from the practical men here present

HÆMORRHAGIC MALARIAL FEVER AS IT OCCURS IN ALABAMA [1]

By JEROME COCHRANE, M D,

STATE HEALTH OFFICER OF ALABAMA

Ordinarily it is very unwise for anyone to attempt to give the description and treatment of any disease which has not been made familiar to him by long practice at the bedside, and in the beginning of my paper I desire to state frankly that I have no knowledge at all of hæmorrhagic malarial fever based on personal observation Circumstances, however, have led me to make a tolerably thorough study of this disease, and my present contribution to its natural history seems to me to be warranted by these two considerations 1 That I have accumulated a large amount of material that has not been heretofore in any proper sense of the word published, and 2 That I shall confine myself strictly to the analysis and arrangement of these new sources of information to the entire neglect of the literature of the subject A very brief statement will show how I came in possession of the information here alluded to

In my account of the epidemic fever which prevailed in 1883 in Brewton, a small town in Escambia county, Alabama, I have stated in some detail the problem of differential diagnosis which had to be solved there I had for many years been familiar with yellow fever, and to me it seemed perfectly clear that the fever at Brewton was yellow fever The physicians of Brewton had been for many years familiar with hæmorrhagic malarial fever, and they asserted with persistent emphasis that the Brewton fever was hæmorrhagic malarial fever At that time I had no circumstantial and critical knowledge of hæmorrhagic malarial fever, having in all my professional life seen only one case of it I had read in a casual way the papers which had been published with regard to it in the Transactions of the Medical Association of Alabama, and had on several occasions heard it discussed during the annual sessions of said Association But all this had given me only a vague general knowledge of the malady, and not that minute, definite, and circumstantial information of the concourse and succession of symptoms which is needed for purposes of diagnosis in the presence of an emergency such as that which confronted me at Brewton

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[1] Read in the Medical Section at the Thirty-Sixth Annual Meeting of the American Medical Association

As a consequence of this embarrassing experience I made up my mind to make as careful a study of hæmorrhagic fever as I could, with the special object in view of establishing the data upon which any medical man of ordinary skill might be able with confidence and certainty to distinguish this said hæmorrhagic malarial fever from specific yellow fever To this end, accordingly, in the winter of 1883–4 I distributed among the physicians of Alabama one thousand copies of a circular letter requesting them to furnish me all the facts in regard to this fever they had been able to glean from their personal observation of it To this circular letter I received forty four responses, some of them very brief and some of them quite elaborate My own lack of clinical acquaintance with the disease makes it impossible for me to undertake to estimate the comparative values of the statements and opinions of all these witnesses, and as the result of my analysis of their testimony I can not venture to attempt to draw such a picture of the malady as will show all the minute details which characterize it under its several forms and in the several stages of its evolution The most that I can do is to present such a general outline of it as will exhibit its larger features, and to call attention to such of its characteristics as seem to be established by the substantial agreement of many witnesses

The circular letters here referred to, together with a discussion of them, of which this analysis is largely a rehash, were printed in the Transactions of the Medical Association of Alabama for 1884, pages 495–619

In the fall of 1884 it came to my knowledge that cases of hæmorrhagic malarial fever were occurring in several counties of Alabama, and with the view of clearing up some of the disputed questions in regard to it I requested my medical friends to keep careful clinical records of their cases, and to furnish me with specimens of the urine and the blood for chemical and microscopic study At the same time I insisted very urgently that no opportunity for post-mortem examinations should be allowed to pass without utilizing it to the utmost advantage

As the result of this effort I obtained 1 clinical reports of three cases, two from Dr D S Hopping, of Letohatchie, in Lowndes county, Alabama, and one from Dr R D Webb, of Livingston, in Sumter county, Alabama, which I gladly include in my paper

2 Several specimens of the characteristic red urine, together with other specimens passed a little before the appearance of the red urine and a little after its subsidence It was my good fortune to be able to obtain the aid of Dr G M Sternberg, of the United States army, in the study of this urine, and his valuable report of the results of his study is also made a part of this paper

I failed to get any specimens of blood I also failed to get any opportunity to make a post-mortem examination

Dr Webb's Case—Dr D S B , aged 30 Practises in a swampy, alluvial district, in which in the fall of the year there occur the several forms of malarial fever In the fall of 1883 he had repeated attacks of malarial fever, one of which approximated the hæmorrhagic variety, the surface of the body being considerably tinged with yellow color, and the urine highly colored, probably by hæmatine, but at this time it was not examined

On November 6th, 1884, he had a slight chill followed by fever On the 7th the chill and fever were repeated, but still without alarming symptoms, and he continued to attend his patients, neglecting to take anything to arrest the chills

On the morning of the 8th (9 A M) he had a third chill, which was more severe, and which lasted for three hours As the chill began to disappear and febrile reaction set in, he had a large discharge of very dark-colored urine, supposed by him to be hæmaturic By 4 P M his fever had abated and he rode in his buggy to Livingston, a distance of ten miles He consulted me at my office immediately on his arrival His appearance was sallow, and he appeared somewhat debilitated His fever was now nearly or quite off, and his urine clear I advised him to at once take his bed and place himself well under the influence of quinine by 8 A M the next morning

November 9th I was absent from town and did not see him until the morning of the 10th I learned on my return that at 5 A M (on the 9th), before he had taken quinine enough to be under its influence, he had another chill, followed by a copious discharge of very dark-red urine His fever continued during the day and until the middle of the night The early part of the day his urine whenever voided was deep-red or dark During the evening it gradually lost its dark color, and by the middle of the night was of natural color He was seen by Dr Arrington on the 9th, and it was agreed that he should take thirty grains of quinine by 4 o'clock A M , commencing at 10 o'clock at night

November 10th, A M , I found him clear of fever, urine of natural color, and skin slightly tinged yellow I should mention that his bowels had been acted upon by calomel and podophyllum He had been very much nauseated during the past night, and feared he had not retained his quinine This morning (10th) 8 A M, he was still very much nauseated and occasionally ejected from the stomach a viscid, watery fluid of a light-green or bluish color His stomach revolted at the idea of any further medication, and it was thought best to trust him during the day without anything else than such remedies as might allay the nausea For this purpose small doses of carbolic acid and morphine with drafts of hot water, which was grateful to the patient, were tried, with, however, but little good results The nausea and depression continued until 2 30 P M, when he had a return of fever, with very slight indications of a chill The urine, which was very copious, became again very dark-red The nausea was distressing, the skin became distinctly yellow, and the patient ejected considerable quantities of viscid, bluish fluid from the stomach The patient had a distressed appearance, and was growing quite feeble These distressing symptoms continued until midnight, when there was an abatement in the fever, and the urine became again nearly of natural color

November 11th Another attempt was made to place the patient under the influence of quinine during the night The quinine up to this time had been given in capsules Fearing it was not taken into the system, I had pills prepared with dilute sulphuric acid and glycerine to render them more soluble

During the night he got twenty-five grains of quinine prepared in this way Slept but little and was distressed throughout the night by nausea This morning (11th) he got hypodermatically one-third of a grain of morphine to control the nausea His fever returned at 2 P M (temperature 102), free discharge of hæmaturic urine, nausea and vomiting severe His fever did not abate as usual by midnight, and the temperature remained at 102 F The urine also continued dark

November 12th Fever *not abated*, severe nausea, and urine still dark Fearing that the quinine was still not retained or not absorbed, I determined to use it hypodermatically, with atropia and morphine At 6 A M he got eight grains of quinine in pills, with morphine, grains one-quarter, and sulph atropia, *grains* one-fiftieth, hypodermatically At 10 A M he got hypodermatically quinine, grains eight, and at 12 o'clock quinine, ten grains, in the same way, at 8 P M he got one-fiftieth of a grain of sulph atropia Has not voided his urine since last evening The patient was now drowsy and somewhat comatose, and his condition seemed almost hopeless Eight ounces of urine were drawn by catheter The color was rather darker than natural, but clear, and temperature 100 No exacerbation of fever to day

November 13th Got bitart potassa and acetate potassa during the night This morning the patient is weak, but mind is clear, and he is more cheerful Drew off by catheter ten ounces of clear urine, of natural color, got one-fiftieth of a grain of sulph of atropia Temperature 99 Ten ounces more of natural-looking urine drawn off, P M

November 14th Patient clear of nausea, slept well, twelve ounces of urine drawn off this morning, bowels acted upon by sulph magnesia

November 15th Patient convalescent, but very feeble, with a liberal diet, stimulants and tonics, was up in a week, but it was fully a month before he recovered his strength

The urine, which was frequently tested during the attack, gave decided indications of blood whenever it was of a dark color, whenever it was natural in color no indications of blood, but albumen in notable quantity was never absent until several days after convalescence Specimens were furnished Dr Cochran, and the analysis by Dr Sternberg will be furnished by him

Remarks —This was a case of distinctly intermittent hæmorrhagic malarial fever I had never before failed to arrest such a case on the second or third day by quinine The first day after he was seen (9th) he did not get his quinine soon enough The next day he seems to have been brought partially under its influence and the paroxysm postponed from 5 A M to 1 30 P M —an effect I have frequently noticed in ordinary intermittent fever when a patient is brought partially under the influence of quinine, but not sufficiently so to arrest the attack

On the 11th, I am notified that from nausea the quinine was not retained, or if retained, the condition of the stomach was such that it was *not absorbed*

On the 12th, he got quinine hypodermatically in conjunction with atropia and morphine, and the fever, which had now become more continued and persistent, was promptly arrested and the patient steadily convalesced

A single word in regard to the absence of blood-corpuscles in the urine examined by Dr Sternberg In your letter of yesterday (March 24, 1885) requesting an account of this case you say "To the cases I will add Dr Sternberg's investigation of the urine, which was thorough, chemical, microscopic, spectroscopic He found no blood-corpuscles in any of the specimens, but found the coloring matter of the blood especially hæmoglobin"

This is exactly as I should expect I have no doubt blood corpuscles existed in this urine at the time it was voided An imperfect examination with a deficient microscope made at the time satisfied me of this fact

Almost an identical state of facts occurred with a specimen sent by me in November, 1875, to Dr James Tyson, of Philadelphia After a careful examination of the specimen, he writes "The urine contained no blood-corpuscles, but the coloring matter was really hæmatine, as was proved by obtaining the hæmine crystals" This was on November 9 I at once wrote him that I could but believe the absence of *blood-corpuscles* was due to the fact that they had been changed by the then alkaline character of the urine "

In reply to this, he wrote on November 21, 1875 "I think the suggestion a very reasonable one It is well known that blood-corpuscles are soluble in alkaline, and disappear very soon in alkaline solutions In strong alkaline solutions they are immediately dissolved, under the eye, and I have often watched them disappear under the microscope, under these circumstances "

Again on September 21, 1876, he writes in acknowledging receipt of my essay on "Hæmorrhagic Malarial Fever," published in Alabama Transactions, 1876 "I have recently made an observation which confirms our notions as to the cause of the absence of blood-corpuscles in some instances from urine About three weeks ago a specimen of urine was brought to me, evidently containing blood, in which the microscope proved the presence of thousands of corpuscles on a single slide I examined it again yesterday and found the corpuscles almost totally gone "

Here, then, I believe, is the solution of the fact that Dr Sternberg found no blood-corpuscles The urine when examined by him had become *alkaline* and had dissolved the corpuscles

Dr Hopping s Cases—Case of Hampton H Called November 20, 1884, to see Hampton H, white, aged 17 years A stout, tough boy, but dwarfed by hard work and malarial saturation of long standing Has had many attacks of chill and fever during the past three years, escaping not always during the winter months His present attack is of the double tertian type The surface soil surrounding his residence is of a sandy loam with a tenacious red sub soil very retentive of moisture—conditions most favorable for the generation of malaria Of the forty-four cases that I have treated, forty have occurred where such soils abound

His chill of yesterday evening attracted no particular attention, but that of this morning, at 10 A M, caused unusual restlessness attended with rigors

I reached his bedside at 2 o'clock P M with the above history Pulse 108, full and strong, temperature 104 2-10, skin perspiring freely, urine of the port-wine color, is freely and frequently discharged, not, however, so blood like as in majority of such cases, the icteroid hue very perceptible, but not deep Tongue furred, suffers very little with nausea, spleen enlarged and tender on pressure, no enlargement or tenderness of liver Mind clear, but watchful and apprehensive Ordered calomel, 12 grains, and Dover's powders, 6 grains, made into three portions and to be taken at once—one every three hours—and ordered 18 grains of quinine in six portions, beginning at 10 30 P M, and repeat every two hours Bottles filled with hot water were unremittingly applied next to his person to encourage the diaphoresis

November 3rd, 11 o'clock A M At 6 o'clock this morning temperature was 98, at this hour 101, pulse 115, full and rather gaseous, skin perspiring freely The bowels have been moved twice by the medicine, the last very dark and consistent, urine is still freely discharged, less, though, than yesterday, and not so highly colored, discoloration of skin something greater He is now fully under the influence of the quinine Ordered tincture of iron 20 drops, with 2-grain solution of chlorate-potash every three hours and repeat, 3 grain doses of quinine at 12, 3, and 6 o'clock in the morning Milk punch, eggnogg and chicken water *ad libitum*, and castor oil, ½ ounce, if bowels are not moved by 12 o'clock to-night

November 4th, 1 o'clock A M His father writes, Hampton has had a chill and that he is totally unmanageable, fever very high I replied by note ordering a hot foot bath and to sponge his face, neck, and chest with the same and apply cloths rung out in hot water to chest, stomach, and bowels This was promptly done, and I reached his bedside at 7 35 A M, his father informing me that my prescription gave instant relief Has taken the 9 grains of quinine, pulse now 116, greatly moderated in force and volume, temperature 99 2-10 Bowels moved by the oil Discharges black and tarry, skin and urine again more deeply colored To facilitate the diaphoresis and to prevent chill, I prescribed camphor gum, grains 2, sugar, 2 ounces, and chloroform ʒj rubbed well together, and water sufficient added to fill an ounce vial Dose, a teaspoonful every hour for four hours Tongue is, as it has all the while been, heavily furred Ordered calomel, 3 grains, at 11 A M, again at 3 P M Quinine again to-night at 12 o'clock and at 3 and 6 o'clock Six o'clock P M, temperature 99 4-10, pulse 98

November 5th, A M Had a very restless spell last night, which was again promptly relieved by the hot foot bath and hot sponging Pulse 126 Quinine, grains 2, every two hours, until three doses are taken, to be taken during forenoon of to-morrow Tincture of iron and potash as before

November 6th Found Hampton still improving, color both of urine and skin improved Temperature 98, pulse 100 Took iron and potash as before and quinine, 6 grains, in three portions, during the forenoon every day

Temperature and pulse range much the same as on yesterday, manifesting a gradual improvement Under the quinine, iron, and supporting diet, improvement was evident until the 12th On this day during the afternoon, his temperature ran up to 104, cheeks red, urine again red Ordered calomel, 8 grains, in two portions, with Dover's powders and quinine, 6 grains, to be taken from 12 to 8 A M in two portions

November 13th Had a rigor at 10 P M last night and a decided chill at 6 A M this morning Urine highly colored Tongue rather dry and thirsty Iron and quinine, the latter 6 grains daily He is quite nervous and restless The hot sponge bath of face and chest gives relief and quietude A full dose of oil and fifteen drops of turpentine is given Diet, milk punch and raw eggs and sugar

November 14th 11 o'clock A M, temperature 100 8-10, pulse 100 Bowels acted well three times since yesterday Had a better night than anticipated Urine much paler, yellowness of skin fading Has some appetite, no nausea Afternoon, temperature 100, pulse 108 Treatment continued

November 15th Pulse 88, temperature 100 6-10 Had a chill yesterday evening, but was followed with light fever , urine and skin much the same

November 16th Had a good night Temperature 99 8 10, pulse 95 Takes tinct eucalyptus and tonic of iron, quinine, and strychnia The condition of the children seemed, under the watchful care of the parents with tonic medication and supporting diet, not to require my daily visits Hampton did well until the twenty-first day of his illness, when the chill again returned This, like the former, was attended with increased discoloration of urine and skin, and anæmia more evident, and again broken up by calomel and quinine, the latter increased to twelve grains daily Improvement again took place After arresting the chill the doses of quinine were again reduced And on this, his twenty-eighth day, a chill was clearly manifested His bowels had been neglected Oil and turpentine given, and repeated when twenty four hours without an action and the chill day anticipated by increased doses of quinine, enabled him to miss chill on the thirty-fifth day and convalescence assured

The only comment I would make on this case is to note the persistent malarial taxæmia, as shown by the periodical return of paroxysms on the 14th, 21st and 28th days of his attack, and the effect of quinine in preventing its return when given in anti-periodic doses, and the certainty of paroxysmal returns when given in small doses, viz Three to six grains during twenty-four hours In respect to the opinion of many learned in the profession, I was induced, after breaking up a paroxysm, to fall back on small doses I did so with fear and trembling, for my experience had too often made it evident that a chill would come on hebdomadal periods And as in others, so in this case, I was constrained to return to my first love (quinine in large doses), and to her my patient is indebted for his being to-day

Such diversity of opinion as to the value of the great anti-periodic may possibly be reconciled on the hypothesis that the cause is more potent in some localities than in others With my views as to the certainty of the returning paroxysm and the virtues of the anti-periodic, it would be criminal to withhold it

Case 2 —November 4th, 1884 G H, age 14, sister of Hampton, has had many attacks of malarial fever during summer and fall The present attack is of the double tertian type Had a chill at 2 o'clock this P M, and her urine, which was passed frequently and copiously, was observed to be dark-red, skin soft, and perspiring freely, and jaundiced, and tongue deeply furred At this hour (11 o'clock P M) her temperature is 102 2-10, and pulse 126 Gave chloroform and camphor mixture to stimulate and encourage the diaphoresis, and tinct iron, twenty drops, and chlorate pot solution every two hours (two grains at each dose)

November 5th Soon after I left my patient last night she had a hard rigor at 2 o'clock, A M, fever following of about one hour's duration Urine dark-red, skin very yellow, respiration sighing, nauseated, and occasionally vomits the iron

Continued chloroform mixture, and the iron and potash as before, and quinine at 12, 3, 6, and 9 o'clock this P M in three-grain doses, and a half ounce oil, at 10 o'clock this A M She can not retain anything on her stomach, P M At 12 o'clock to day her temperature was 101 2-10, and at 5 o'clock P M 103 2-10 Skin very yellow, urine very dark-red, freely and frequently discharged Every expected paroxysm is anticipated by drachm doses of the chloroform mixture, flying mustard plasters to spine, stomach, and extremities Bowels have been moved at 11 o'clock to-night after repeating oil at 6 P M Then took ten grains quinine in four portions, one every two hours

November 6th, 9 40 A M She had a bad, restless night, retained the quinine with difficulty, and when vomited was immediately repeated She is extremely weak, anæmic, and jaundiced, not so much urine discharged, and it is perceptibly paler, pulse varying from 130 to 140, and very weak Temperature 96 6-10, respiration labored and sighing, the breath is cold, restlessness very great, and nausea too great to take nutriment Whiskey toddies with lemon juice, and flying sinapisms pressed as before Three o'clock P M, pulse thready and hard to count, about 140 Temperature 96 4-10, restlessness extreme, will not permit her hands and arms to be covered, breath very cold to my hand Four o'clock P M, pulse 150 Slightly more febrile, delirious, right hand and arm cold, skin deep-yellow, urine passed in bed, does not discolor the sheets greatly, tongue colored black by the vomiting of bile and iron, and very dry She took toddies and milk punches through the night very reluctantly, and when vomited were repeated External stimulants also continued Pulse through the night varied from 140 to 150, extremely weak and hard to count She is delirious, talkative, and hard to control

November 7th, A M At 5 o'clock A M the stimulants were more energetically pressed, and she slept a little, the first in two nights Pulse at that hour 140, temperature 96 6-10

Prostration very great Tongue dry and black No move from the bowels, still delirious and talks incessantly, restlessness if possible still greater, hands and arms cannot be made warm by hot flannels

Stimulants continued Just here I felt deeply the responsibility of determining the propriety of administering a mercurial to a delicate patient so near unto death I feared that I had already waited too long, and saw plainly that something had to be done or dissolution would result I gave the mercury (calomel 11½ grains with Dover's powders every three hours until four portions were taken—beginning at 8 A M, At 10 A M this morning her temperature is 98, and pulse 140, and attempted to give quinine in 1½-grain doses during the day, but stomach would not tolerate it Six o'clock P M, has retained the calomel Temperature 97 1-10, pulse as near as can be counted, 140 Still delirious, talkative and will not permit her hands and arms, which are still cold, to be covered Urine in color and quantity apparently normal Skin still deeply discolored

Eleven o'clock, P M, condition much the same, if any change, it is for the better Stimulants both internally and externally continued

November 8th Two o'clock A M, had a small action from the calomel, 10 o'clock A M, temperature 98 6-10, pulse 132 Had many good naps of five or ten minutes' duration Tongue a little moist on sides, and dry and black on top

Twelve M Pulse 120, temperature 99 1-10

Three o'clock, P M, gave oil, a tablespoonful

November 9th Had an extremely restless night, extremely impatient Bowels acted many times, all of them as black as tar She is given toddy during every effort to go to stool Temperature this A M is 98, pulse 110, febrile, tongue dry on top, thin and pale, countenance anæmic and denotes great weakness Her short naps disturbed by frightful dreams, and while asleep her countenance denotes pain, and on waking complains that she is so hot, and will talk, despite all of our efforts to restrain her, and, though all of her symptoms have ameliorated, she is at times delirious Skin and urine apparently natural The latter when first discharged is clear, but soon becomes turbid Treatment, stimulants continued, tincture of iron in solution of chlorate of potash, chicken soup and bottled soda water *ad libitum* Since medicine acted well nausea has subsided A turpentine wash for the mouth relieves the dryness

Six o'clock P M, is doing well

November 10th, 3 o'clock Has rested well since last evening, temperature at 7 o'clock this morning was 99, pulse 116 At 11 P M pulse 126 At this hour it is 106, hard and quick, respiration less noisy and talks less, no delirium Bowels have continued to act six or eight times during past twenty-four hours—discharges still dark as gunpowder, and tarry, urine clear and copious, passed three times in last twenty-four hours Tender over region of liver and bowels Supporting treatment continued

November 11th, P M Had a comfortable night, pulse ranged from 108 to 112 during last night, temperature not taken, instrument broken Bowels continue to act freely, black and tarry This P M, pulse 102, temperature 100 8-10 Gave turpentine, four drops, and twenty drops tincture of iron every six hours Appetite improved, takes chicken soup and milk punch in small quantities with relish, also raw eggs and sugar, continues the bottled soda Tenderness over liver has disappeared

November 12 She still holds her own, temperature 101 4-10, pulse 106, eats and sleeps well Has from four to six moves from the bowels during twenty-four hours, thick and black as before Treatment continued

November 13th Temperature 102, pulse 104 Bowels acted six times in past twenty-four hours, the same black, thick, and tarry discharges, and in large quantities Takes three grains of quinine during the morning every three hours until nine grains are taken Iron and chlorate of potash every six hours Temperature at 7 P M, 100, pulse 90

November 14th, A M Rested well last night and feels well, temperature 99, pulse 90 Treatment continued Temp 100, pulse 88 this P M

November 15th Pulse 86, temperature 100 Tonic doses of iron, ten drops, quinine, one grain, and strychnine, gr $\frac{1}{60}$, three times a day

November 16th She is apparently doing well, though her temperature is 102, pulse 98, cheeks red, less thirst, and tongue more moist Still takes nourishment with relish, complains of no pain or tenderness Convalescence from this date though slow, under the iron, quinine and strychnia Tincture of eucalyptus was sure

DR STERNBERG'S REPORT

It is hardly worth while to give you a detailed account of the examinations which have been made of the various samples of urine sent to me by yourself and your correspondents, but I will state briefly the results of these examinations

Samples were received

November 10th One sample of port-wine-colored urine, acid reaction, highly albuminous, contains epithelium from bladder, granular tube casts, and micrococci in chains

November 12th One sample, port-wine color, acid, albuminous, contains epithelium from bladder, and tube casts (marked Gussie 2)

November 18th A box containing several samples was received One of them was of the characteristic port-wine color and received special attention Like the other samples it was acid and highly albuminous

Other samples sent with this had been kept for a considerable time, and were specimens obtained from the patients Gussie and Hampton, which had been passed first before a hæmaturic paroxysm One of these samples was of a pale straw color, acid reaction, and non albuminous It contained an abundant deposit of uric-acid crystals Another sample, marked Gussie No 1, had a pale-yellow color, was albuminous, and contained epithelium from the bladder, and granular tube casts Another specimen had a light-pink color, and contained an abundant amorphous sediment It was non-albuminous

November 21st Two samples received and two broken bottles The bottles not broken contained urine passed in advance of a paroxysm One sample, marked "Gussie No 3," was neutral, non-albuminous, and contained uric-acid crystals One sample marked "Hampton No 2" was acid and slightly albuminous

December 29th Two bottles of bloody-looking urine were received No 1 was neutral, highly albuminous, and contained an abundant amorphous sediment, also an abundance of micrococci and bacilli No 2 was alkaline, highly albuminous, and also contained an abundant amorphous sediment, and numerous bacilli and micrococci These samples had evidently undergone putrefaction changes, and were of no value

I have examined every specimen sent, with reference to the presence of blood corpuscles, and have not in a single instance found any This absence of blood-corpuscles is, in my opinion, satisfactory evidence that the color of the urine is not due to hæmorrhage from the kidneys, for blood-corpuscles placed in normal urine may be recognized at the end of ten days or more, and after the urine has undergone alkaline fermentation That the color is due to the presence of hæmoglobin is proved by spectrum analysis, and by the formation of hæmin crystals when the port-wine urine is treated with glacial acetic acid and chloride of sodium, and heat is applied

Dr H Newell Martin, Professor of Biology in Johns Hopkins University, has kindly applied these tests to several of the samples sent, and has demonstrated the abundant presence of hæmoglobin It seems to me, therefore, to be proved that the abnormal appearance of the urine is due to an excretion of hæmoglobin which occurs during the paroxysm, and that we have to deal with an intermittent hæmoglobinuria This being the case, the disease in which this is the most prominent symptom is incorrectly designated when spoken of as "malarial hæmaturia," or as "hæmorrhagic malarial fever"

Various questions suggest themselves with reference to the immediate and remote causes of this intermittent excretion of blood-pigment, but these can only be settled by extended researches, and, owing to other engagements, I have not been able to give the time to this investigation which the importance of the subject demands Physiologists have shown by experiment that the injection of bile salts into the circulation of a dog causes the red corpuscles to lose their hæmoglobin, and that hæmoglobinuria occurs as a result of such injections This suggests the possibility that the retention of bile salts in the blood may be the immediate cause of hæmoglobinuria in cases of so-called "hæmorrhagic malarial fever"

NATURAL HISTORY

The natural history of hæmorrhagic malarial fever, so far as it can be drawn from the witnesses I have indicated, may be summed up in the following brief propositions

1 That hæmorrhagic malarial fever originates only in malarial regions, although the morbific paroxysm sometimes may occur after the removal of the subject of it to a healthy locality

2 That the poison which causes hæmorrhagic malarial fever is the same as that which causes ordinary intermittents or remittents But a few of my correspondents are inclined to doubt this, and to believe that the specific etiological factor in this disease is not identical with that which produces intermittent and remittent fever of the usual malarial types

3 That hæmorrhagic malarial fever may manifest itself in three different forms, namely, (*a*) the intermittent, (*b*) the remittent, (*c*) the congestive, to which may probably be added a fourth form, (*d*) the quasi-continued In this respect this fever follows the analogy of the ordinary malarial types

4 That the congestive form of the malady is almost necessarily fatal under all plans of treatment, the remittent form extremely dangerous, with the deaths in excess of the recoveries, the intermittent form less dangerous than the two others just mentioned, with the recoveries in excess of the deaths, while the quasi-continued form is comparatively rare, and probably the result of inflammatory visceral complications

5 That negroes and mulattoes are comparatively exempt from the disease in any of its forms, being, indeed, less susceptible to this fever than to yellow fever, and the rate of mortality of the cases that occur among them is very much less than that among the white cases

6 That in the immense majority of cases it attacks persons who suffer from malarial cachexia, and who have a history of chronic chills But in a small minority of cases it attacks persons who, while they have been much exposed to malarial influences, have still remained apparently well up to the moment of the malignant outbreak

7 That one attack affords no guarantee against another, the same person often suffering successive attacks in successive seasons, or even in the same season

8 That the paroxysms usually begin with a chill, which is often of protracted duration, which occurs frequently during the afternoon or in the night, and which is accompanied or speedily followed by troublesome bilious vomiting, by the characteristic red urine, and by icteroid discoloration of the eyes and skin

9 That the febrile reaction, as marked by the temperature and the pulse rate, is not usually of very high grade But there seem to be some

exceptions to this rule in the intermittent and remittent, and especially in the quasi-continued forms, in which both temperature and pulse are dominated by intercurrent complications

10 That while the fever continues the skin is apt to be harsh and dry, although this rule is not universal, and that the occurrence of free, and even profuse, diaphoresis is a symptom of favorable omen

11 That the bowels are usually constipated, the portal circulation obstructed, the liver congested and torpid, and the whole system deluged with bile, and that free bilious purging seems always to afford some measure of relief

12 That the bilious vomiting makes its appearance early, is attended by distressing nausea, and is usually copious and persistent, the vomited matters ranging through many shades of color—yellow, green, black, and even blue

13 That the black vomit of this fever is usually altered bile, not altered blood, and is free from the coffee-grounds appearance so characteristic of the vomit of yellow fever, but a small number of cases seem to be marked by black vomit not distinguishable by mere inspection from that of yellow fever

14 That when this black vomit occurs at all it almost always occurs at the beginning of the attack, and is always preceded by the appearance of red urine

15 That the icteroid discoloration of the skin and eyes, which extends also to the cellular tissues, usually comes on with the initial chill, deepens very rapidly in intensity, may clear up more or less during the remissions and intermissions of the fever, to increase again with the successive exacerbations, may grow less toward the end of protracted fatal cases, and sometimes disappears completely after death

16 That the characteristic red urine usually shows itself with the initial chill, and always in an early stage of the paroxysm, is at first very profuse, may diminish or disappear in the remissions and intermissions of the fever, to reappear again in the successive exacerbations, may clear up and grow less abundant toward the end of protracted fatal cases, and there is often toward the end of fatal cases complete suppression of all urinary secretion

17 That the red urine, which is the special characteristic symptom of this fever, is highly albuminous, with granular tube casts in abundance, and owes its red color, not to the presence of blood and the red corpuscles, but to the blood pigments, and especially to hæmoglobin

18 That the more obvious post-mortem appearances in hæmorrhagic malarial fever are substantially the same as are found in other malarial diseases, namely Liver enlarged and congested, and of dark bronze or slate color, bile abundant in gall bladder and alimentary canal, spleen enlarged and congested, but with the additional pathological complication of enlarged and congested kidneys

MISCELLANEOUS MEMORANDA

Mortality—My collection of cases numbers six-hundred and forty-two (642)—four hundred and eighty-four (484) recoveries, and one hundred and fifty-eight (158) deaths The percentage of deaths to cases, therefore, is 24 60, or, in round numbers, one-fourth of the cases died, and three-fourths of them recovered

Black Vomit—I took a great deal of trouble to secure full accounts of black-vomit cases, but out of the six hundred and forty-two cases reported, only fourteen presented this symptom, and in only three cases is the black vomit reported to have resembled coffee grounds

It is a curious fact, too, that those of my correspondents who have practised in the most intensely malarial sections of the state, and who have seen the largest numbers of cases of the most malignant types, have not seen black-vomit cases at all, and some of them distinctly take the position that the so-called black vomit of hæmorrhagic malarial fever is always altered bile, and not, like the black vomit of yellow fever, altered blood Bile is very abundant in this form of fever, and bilious vomiting an almost constant symptom So that the most probable presumption is that in the vomit of this fever, bile may always, or almost always, be found Still there may be, by possibility, a few cases in which at some of the later stages of their progress, we may have black vomit containing no bile—a black vomit identical, or very nearly allied to that of yellow fever Thorough examination—chemical, microscopic, and spectroscopic—of the vomit of this fever is greatly to be desired

The Specific Poison—It is the common opinion of physicians familiar with hæmorrhagic malarial fever that it is a true malarial disease, induced by the same morbid poison that gives rise to our ordinary intermittents and remittents But there are a few who incline to the belief that it is produced by a poison *sui generis*, allied perhaps, to the ordinary malarial poison, but not specifically the same One of my correspondents especially, namely, Dr S M Hogan, of Union Springs, insists that hæmorrhagic malarial fever is a specific fever, separate and distinct from other malarial maladies, and that it often presents itself in mild cases without the red urine

In a circular issued in 1881, by the Alabama State Board of Health, I touched upon this conception, as the following passage will show

"It is now beginning to be generally held that malarial diseases are caused by the introduction into the system of microscopic vegetable organisms—the spores or reproductive germs of certain algæ or fungi The two researches which have contributed most toward bringing this doctrine into favorable notice, are 1 The researches of Lanzi and Tesrigi in 1870–76, 2 The researches of Klebs and Tomassi-Crudeli in 1879

Lanzi and Tesrigi, while ascribing the production of malarial fevers to algæ spores, were not led by their observations to conclude that the malarial infection is the product of any single species, but rather that algæ spores generally when sufficiently small to pass through the capillary vessels, might all act in much the same way

Klebs and Crudeli, on the other hand, sought to identify the malarial poison with the micrococci of a single species of bacillus, named by them the *bacillus malariæ* If their speculations should turn out to be the truth, and the whole truth, it then follows that all forms of malarial maladies are modifications of one common type, and that so far as specific treatment is concerned they must all respond in the same way to the same remedies, while if the speculations of Lanzi and Tesrigi are more in accordance with the facts, it would then seem pertinent to inquire whether the spores of different species of microphytes may give rise to separate varieties of malarial fevers "

The Red Urine —Strange to say, there has been a good deal of controversy as to whether the red color of the urine in this fever is or is not due to the presence of blood I consider that Dr Sternberg's researches have definitely settled this question, and that the fact, so long ago established by Beranger-Ferraud for the African fever, studied by him—the fact, namely, that the red or dark discoloration of the urine is due to the presence, not of blood, but of the blood pigments, and especially of hæmoglobin—is also fully established for the hæmorrhagic malarial fever of Alabama I am quite willing to believe that the red blood-corpuscles have been found sometimes in this urine, but I feel well assured that it has been only an occasional and, perhaps, accidental phenomenon, and that in all cases the characteristic coloring agent is hæmoglobin This demonstration would also seem to make it quite certain that our hæmorrhagic malarial fever is identical with the *fièvre bilieuse-melanurique* of Béranger-Ferraud, and other French writers

The Disintegration of the Blood Corpuscles —I think there can be no doubt that the disintegration of the blood-corpuscles and the liberation of the hæmoglobin takes place within the blood vessels in the current of the circulation, and that in relation to this pigment, and in relation also to the albumen of the dead corpuscles, the kidneys act simply as organs of elimination

In the study of this problem the fact mentioned by Dr Sternberg becomes suggestive—the fact, namely, that the separation of hæmoglobin occurs when bile is injected into the blood current in dogs Free hæmoglobin has also been found in the blood of patients suffering from malarial hæmaturia, so called, whatever disease these words may have been intended to designate But the sufficient demonstration is found in the fact that when blisters are drawn in severe cases of this disease they yield serum colored exactly like the urine

NOTES ON TREATMENT

Under this head I propose simply to offer a few suggestions as to some of the more obvious indications of treatment, based on the pathological characters of the disease, and upon the experience of my correspondents

1 There is virtual unanimity of opinion as to the superabundance of bile, the congestion of the liver, the engorgement of the portal circle, and the constipation, and there is also virtual unanimity of opinion as to the beneficial influence of purgatives, especially of mercurial purgatives The methods of administration vary Some give small doses of calomel, or of calomel in some of the usual combinations of it with other drugs, every few hours, until the bowels are freely moved and the portal and hepatic congestions relieved Others give larger doses at less frequent intervals, and a few advocate the administration of enormous doses, thirty, forty, and even seventy grains at a time

2 The disease seems to be always attended by very distressing nausea, and by copious, frequent, and protracted bilious vomiting It is of course impossible to arrest nausea and emesis as long as there is bile in the stomach My correspondents say very little about the management of these symptoms, except as to what is indirectly accomplished through the influence of purgation The indication, however, seems to be very clear that the stomach should be emptied of all the bile that finds its way into it through the duodenum, or in any other way It seems hardly necessary to administer emetic medicines, but copious drafts of hot water or warm teas will probably be found useful

3 A dry, harsh skin is another common symptom, mentioned again and again by my correspondents, and in such cases sweating is mentioned as always giving more or less relief This may be induced by the external application of heat by any of the usual methods, and will be favored by the ingestion of hot drinks as just mentioned in connection with another indication Very little mention is made of the use of diaphoretic drugs

4 It does not seem to be settled whether or not it is desirable to address remedies directly to the kidneys In the meantime all attempts to check the discharge of the red urine by the agency of astringents and styptics have proved certainly unavailing and perhaps mischievous, and the same unfavorable verdict may be confidently pronounced on all attempts to restore through the stimulus of diuretics the action of the congested kidneys when suppression supervenes The chief reliance for the relief of the overburdened kidneys must be sought in the derivative and compensatory action of the bowels, and especially of the skin

5 One of my medical friends has found much benefit to result from the free use of oranges and lemons, of which he allows the juice to be ingested *ad libitum* He is confident that these agreeable vegetable acids exert more effectual control over the stomachic troubles than any other remedies he has ever employed He also be-

lieves that they act well on the kidneys and the skin , and perhaps also on the blood

6 As this disease has been almost universally regarded as of malarial origin, it was very natural that our physicians should have looked to quinine as the very sheet anchor in the treatment of it, and so for a long time the general rule was to give quinine in liberal and frequent doses , and with many physicians this is the rule still It was, however, very soon observed that quinine exercised far less control over this disease than over our ordinary intermittent and remittent fevers It was also observed that it often increased the flow of red urine, and even reestablished it after it had ceased to show itself Strangest of all, it was observed that in many cases the chills came on while the patients were thoroughly under the influence of quinine

The result of this has been that the confidence of the medical profession of the state in the beneficent power of quinine in this fever has been very much weakened, and that many of them have ceased to use it at all, unless, perhaps, as a tonic in convalescence Efforts have been made to show the inadvisability of the quinine treatment, by appeals to statistical tables comparing deaths and recoveries with and without quinine I do not regard these tables as at all conclusive, because of the small number of cases placed in comparison, and for other reasons that need not now be mentioned In the meantime the broad fact still remains that in the treatment of this most dangerous of malarial maladies, quinine, the great malarial remedy, has lost ground, and is still losing ground in the confidence of the profession Those who still believe in the efficacy of quinine in the treatment of this malady ascribe the waning faith of their doubting confrères to improper methods of administration It should not be given, they say, until the system of the patient has been prepared for its reception — that is to say, until the superabundant bile has been purged away, and the cutaneous functions reestablished

7 One very remarkable case is related by Dr R S Williams, of Mount Meigs His son, aged 18 years, had been spending the summer of 1881 on a plantation on the Tallapoosa River, where he had frequent attacks of intermittent fever, which were temporarily controlled by quinine On the 1st of August he had an attack of intermittent hæmaturia, which also yielded to quinine He now removed to Mount Meigs, a village free from malarial diseases, and was kept on quinine and iron for three weeks On the 10th of September, while fully under the influence of quinine, he had a chill, with copious excretion of red urine This was followed by daily paroxysms for five or six days, the red urine declining gradually, and disappearing completely on the fourth day On the seventh day he was convalescent, and was placed on Fowler's solution of arsenic, which he continued to take for three weeks Just twenty-eight days from the previous outbreak he had another attack, commencing with a severe chill, complete prostration, and abundant red urine The paroxysms returned every day This time he took no quinine The urine continued red for several days, and gradually grew less in quantity until it reached about eight ounces in twenty-four hours, when the red color disappeared, it then dropped to four ounces in twenty-four hours, and uræmic symptoms developed, then to one ounce and a half in twelve hours, and then there was complete suppression During this time he was treated with atropia Death now seemed inevitable The pulse was down to twenty, respiration seven, pupils widely dilated, coma profound In this emergency pilocarpin was given hypodermically — size of dose not mentioned In less than five minutes a profuse sweat covered the patient's whole body, and there was a copious secretion from the nose In four hours there was a large discharge from the bowels, and in eight hours a discharge of urine, the first in forty-eight hours, with entire relief to the brain, to the circulation, and to the respiration The excretion of urine gradually increased until it reached the enormous quantity of 148 ounces in twenty-four hours, and this hyper-excretion continued for eight or ten days, gradually lapsing back to the normal standard

Dr M K Taylor said that when stationed in north Alabama he saw some cases like these described, and observed micrococci in the blood of every case before and after death Blood and albumen in the urine were also frequent We do not know what the disease is, we call it malaria

As to treatment, quinine is utterly valueless In small or large doses it did no good, while it controlled the temperature, it did not control the discharge of blood Calomel and soda gave the best results, combined with bathing of the skin

THE STILLBORN

BY FRED HUMBERT, M D , F C S ,

OF ALTON, ILLINOIS

Reading the debate on the etiology of stillborn in the Journal of the American Medical Association, Vol IV, No 14, reported from the New York County Medical Society, in which some eminent professors participated, has reminded me of an intention to give my opinion regarding the etiology of stillbirth gathered from experience and observation, not found in obstetrical works, nor in the report above mentioned

What are the causes that destroy the apparently healthy and fully developed fœtus of, so far as we can see, healthy parents ten or fourteen days before labor sets in? The cases which have come under my observation during fifty-five years of general practice have led me to leave the old travelled path of reasoning from the border line of probability, and begin to view the subject from the period of the dying of the fœtus in the womb This led me to find the true cause, and to give such advice as would enable the unfortunate woman to bring forth a living child

Before entering upon a discussion of this important subject, let us take a retrospective view of the present knowledge of the profession regarding it, so that those who have never met it may be prepared to face it at any time

From the United States census of 1870 there were 5,282 stillbirths The mortality report concerning the stillborn is omitted in the census of 1880 I present some reports as gathered from different medical journals In the city of Baltimore the statistics for 1840 show a population of 102,313, deaths 1,775, stillborn 192 a percentage of 10 9 In the same city, in 1849, there is a population of 169,054 deaths 4,893, stillborn 411, per cent 8 4 In Mayence on the Rhine, in 1856, there is reported 7,739 births and 464 stillborn Of these (all I found thus recorded), 236 died during labor, and 228 were dead when labor began, a per cent of 5 9

In Philadelphia, in 1858, a population of 575,000 gives deaths 10,895, and stillborn 557, a percentage of 5 7

St Louis, in 1873, with a population of 450,000, had 8,551 deaths, and 514 stillborn, a per cent of 6 In 1874, the mortality in St Louis was 6,527, and stillborn 474, a percentage of 7 2, but it proved later that the census of 1870 was not correct, which, when reduced, raised their percentage of stillborn above all others to 10 The number of deaths registered since January 1, 1882, is 5,331 This includes stillborn, averaging about ten per week — a percentage of 10½

Bermuda, in 1872, in a population of 12,785, had 394 deaths, and 14 stillbirths, or 3 5 per cent

W M Findley, M D , Altoona, Pa , in 300 deliveries reports five cases of stillbirth, 1 7 per cent This favorable report was from a country practice, and strongly proves that high living— a life of pleasure, without the domestic virtues, greatly increases the number of stillbirths

Various causes are claimed to produce stillbirth Let me separate the so long stereotyped reasons of our works on obstetrics, and show more plainly the true cause of a stillbirth after once taking place, and thus be able to prevent another

Scrofula and syphilis are said to act the most important part as the causes of stillbirth, and of these syphilis is much the more prominent, in its various modifications of tumors, placental degenerations, tubercle, etc The stage of development of this disease, as first, second, or third, has its peculiar influence upon the offspring

Syphilis is of slow growth after the healing of the primary ulcer It lies dormant years and years, no external symptom indicating a body infected by this poison—like a tempting and apparently luscious apple whose inside and core are rotten If the disease be thus masked in the parent, why not as much, or more so, in the offspring of such a parent? As proof of the influence of the stage of the disease in the parent affecting his child, I give the following cases which I for years have noted

A merchant, married, on his way to New York, in 1837, to buy goods, contracted a chancre while in Cincinnati As travel in those days by water and land was slow, he did not return home till healed Nine months after his return I delivered his wife of a large, full-grown child covered from head to foot with syphilitic scabs, and it died in the next twenty-four hours The first child of their marriage, a girl of three years, was then living The lady was in perfect health through her pregnancy, remaining so for thirty years, when she died of pneumonia

A year and a half after the birth of the syphilitic child, I delivered her of a healthy girl and in eighteen months of another healthy girl

At this time the husband died of syphilis In due time she married again — a mechanic, by whom she had one girl The first-born, before the husband had contracted syphilis, is now living and the mother of eight or nine healthy children The second girl, born after syphilis developed, was well till her eighteenth year, when, contracting a slight cold, she died of consumption A year afterward, the last-born from her first husband died of consumption The child by the second husband is alive and the mother of several children

Let us divide the case into two parts. First, that in which the death of the fœtus takes place during labor, and second, in which it is evidently dead before labor begins

The causes for the first are well known, and some of them can be met by the attending physician One cause not referred to often is presented by Dr Janeway, in the above-named New York County Medical Society the improper use of ergot by incompetent midwives He also states that about one-third of the confinements in New York city are in the care of midwives In this section of the country, as early as 1833, I observed that all confinements were in the hands of midwives and a few undergraduated (preceptor taught) physicians Nearly all cases were normal The midwives had no knowledge of ergot, and the natural doctor rarely, if ever, used the powder of ergot During the first twenty-five years here I can recall but two cases of complicated delivery But since the close of the war deliveries have fallen into the hands of physicians who flood the country and have a hard struggle for existence I cannot recall more than two midwives in this region But I have seen more complicated deliveries and death of primiparæ from injudicious use of ergotine and meddlesome practice from graduates of our overnumerous colleges than in those earlier days

The second class of stillbirths in which the fœtus dies before labor begins, are largely the result of scrofula and syphilis, especially the latter

There are two classes of these last in which death takes place before labor The first, in which disease of the placenta and cord, etc, are the cause The second, in which the fœtus is full-grown, and no cause can be detected All that can be seen is the maceration which must have taken place during the last two weeks, since the mother has been conscious of a feeble movement, or of none at all These women are generally hearty, well built, married, and anxious to have children, and not at all like the class whose only aim in marriage is lust, hating the confinement of raising children The latter fill the roll of miscarriages

If the former have a stillbirth they will listen to any advice to prevent its recurrence

It always was a mystery to me how these fœti must all apparently die within about two weeks of full term in these healthy women How is it possible that a woman can have five, or eight, or even thirteen stillbirths in succession, the death always occurring *ten or fourteen days* before full term and delivery Can syphilis or any other germ lie invariably all this time, and always this definite time, latent, or will it not show modifications in time and potency on the offspring, whether affected by the father or mother? We have seen in the above illustration the effect of a contracted syphilis upon the first, second, and third-born, after the father's contagion The early authors on obstetrics are silent regarding stillborn Cazeaux leaves us without any help in our trouble He says "It must, however, be confessed that it is often impossible to discriminate the cause of death of the fœtus, or discover anything which can in a satisfactory manner account for it Some of these unknown causes have attracted attention by the persistency with which they continue to act in the same woman through several successive pregnancies I myself know a woman, in good health, who on thirteen occasions, without any discoverable reason, lost her child during the last month of gestation" The writer is acquainted with a gentleman of wealth and high social station in our city, whose wife has been delivered successively of seven stillborn children

Dr P Dubois says "In understanding the fatal termination in preceding pregnancies there is always cause to hope for a happier issue in respect to the one in charge, *so that it is impossible to establish a general rule in reference to matters*" (The italics are mine)

How important this matter is when we see in our own incomplete United States census for 1870 reported 5,282 stillborn in one year In the reports from the cities above how large the percentage, except in Bermuda! Only Dr Finley, of Altoona, Pa, gives us anything like a complete report His percentage is light

Mayence in Germany gives us the most correct because the most specific census, and her average of stillborn before labor began was fifty per cent The only remedy proposed and used several times to correct this persistency of stillbirth is premature delivery Denman and several others thought that by bringing on labor before the period at which the foetus perished in preceding pregnancies there would be a chance of obtaining living children This Dr Tyler Smith carried out He reports that the amount of prejudice will be placed on its proper footing I saw a year or two ago a case with Dr Traucer in which premature labor was brought on after the mother had given birth to several dead children in succession On this occasion a living child was born But in the next pregnancy the patient declined the operation and another stillbirth occurred Such premature delivery was advocated by the president of the New York County Medical Society in the above-mentioned debate He had successfully delivered a patient of a living child by the induction of premature labor I think I have shown plainly in the above review of the history of stillbirth that there is a mysterious cause for such cases as die before labor begins By reasoning from the following case I think I prove to have found the true and only cause of death in most of these cases

In 1867, month of January, a farmer requested me to attend his wife during confinement

I delivered her of a normally developed stillborn child Indications from maceration of the skin were that it had been dead about two weeks After examining the placenta and cord, which were normal, I asked the husband, a stalwart man of five feet ten inches, with curly, light hair and blue eyes, and forty years of age, about his previous married life He said this was his second wife, and she was a widow with two living children when he married her His first wife died in childbirth, and was delivered of a stillborn Every child by this wife, this the fifth, was stillborn As I looked at the husband, with his liquid blue eyes and sensual physiognomy, and at the wife, a strongly built, obese brunette, with sexuality marked, the thought struck me that they must have indulged in copulation during and to the end of pregnancy Toward the end of gestation the fruit-water is mostly absorbed, and the foetus, lying close to the wall of the womb, is not so well protected as in previous months

I concluded the spasmodic contraction of the uterus on such occasions, with the paralyzing effects of coitus, either directly killed the fœtus or gradually, by repeated acts, produced its death So strongly was I impressed with this reasoning that I went to the patient and told her if she should be pregnant again she should have no connection with her husband for at least four months preceding the end of her term October 22, 1868, I delivered her of a living boy, and on December 22, 1870, I delivered her of a living girl, October 27, 1872, she had a miscarriage These are all the pregnancies she has had, and she is now past the period of gestation Both children are living and healthy Her boy and girl by her first husband are alive and have fam-lies Both parents are to day in good health In this case, after five successive stillbirths, a living boy was born, thus proving that my advice when first attending her was good, and more was I assured of this when, afterwards, a living girl was produced

After this happy result my *tabula rasa* brought slowly back to me a remark of my professor in Vienna in 1830, in one of his lectures He said Sophia, the Archduchess of Austria, a Bavarian princess and prominant political leader at court, being pregnant, was advised by her physician to leave the city and live at an imperial manor in Bohemia, away from all excitement, that she might secure a living child I do not know that she had a stillbirth or miscarriage before But a child in this family was then of great importance, as the Crown Prince was without children There she was delivered of a living boy In 1848, Sophia (then the leader in the counter revolution growing out of the resignation of Ferdinand) made that boy, then 18 years of age, his successor He is now the emperor of Austria and Hungary

Had not this nearly effaced fact in my memory assisted me to the present conception and advice, as all original ideas are generally developed from previous undeveloped thought?

Alton, Ill, May 8, 1885

MEDICAL PROGRESS.

MEDICINE

Inoculation of Tuberculosis in a Young Girl —E A Tscherning describes the case of a young woman twenty-four years of age, who was a cook in the house of Prof Holmes, who died of phthisis florida, in six months after its development She had been healthy and robust, with no evidences of scrofulosis or tuberculosis In the last days of the life of the professor his expectoration was almost a pure culture of the bacillus in pus, two days before his death, the cook pricked herself on the side of the median finger of the left hand with a pointed piece of broken glass, which came from a spittoon Fourteen days after the accident symptoms of paronychia showed themselves Phenic compresses relieved the symptoms somewhat at the end of eight days, but there was no suppuration Circumscribed hardness of the size of a pea was felt in the subcutaneous tissue On the following week there was also œdema and slight pain M Tscherning incised and removed the tumor, it was composed of granulations, and situated between the skin and the tendon The wound healed by first intention This was at the end of August

At the beginning of October, the patient complained of pains on flexing the fingers The skin and subcutaneous tissue were tumefied over the phalanx and in the palm of the hand No tenderness over the tendon In November, a thickening of the sheath of the flexor tendon could be felt The functions of the finger were interfered with, and there was a little pain, at the same time the two cubital and two axillary ganglia of the same arm were found to be tumefied In other respects she was very well November 21, Prof Studsgaard extirpated the cubital and axillary ganglia, disarticulated the medius at its metacarpo-phalangeal articulation, incised the palm of the hand, and extirpated the tumefied tendon and its sheath He excised and scraped the subcutaneous granulations Sublimate dressings Reunion on the eleventh day

The pathological changes were the following the sheath of the tendon was filled with pale granulations, the serous investment of the tendon was covered by petechial patches No pus or grumous matter, no alterations in the bone or articulation The granulations, when examined with the microscope, showed a quantity of elementary tubercles, many of which presented a caseous degeneration in their centre, there was a number of large cellules and giant cellules The extirpated ganglia appeared to the naked eye to be simply adenitis without pus The microscope showed a hyperplasia of large cells, with tuberculous granulations In all the sections of the ganglia or tendinous sheath, there were found, by using Ehrlich's method, the tuberculous bacilli very markedly shown, isolated, and sometimes in groups of two or three, in the form of a more or less open V Often they were accompanied by what are called spores —*Revue Bibl Univer des Sciences Médicales*, Jan 31, 1885

Area Celsi —That alopecia areata depends upon the growth of a fungus is a doctrine that has been often advanced only to be refuted, and has now few, if any, supporters Nor can there be any doubt that mistakes have been made in the various attempts to settle what might seem to be a simple question, and certainly, among those who have upheld the parasitic nature of the affection, there has been little agreement as to the precise nature of the fungus concerned It has been reserved for these days of microphytic pathology to revive the doctrine in a more refined form Alopecia areata is due to the growth of a micrococcus, at least so says Dr von Schleu, of Munich, in a paper contributed to the current number of *Virchow's Archiv* He describes five cases, in all of which the stunted and diseased hairs were mostly the seat of colonies of micrococci, averaging 0 5 m in diameter, some smaller ones being of the diplococcus form, and larger ones with median constriction From their situation in the shaft, it would seem that they occurred in connection with the ducts of the sebaceous glands, and it is inferred that they invade the hairs by these ducts The micro-organisms were not found in any but the diseased hairs, and not universally in them By cultures in agar-agar peptone it was ascertained that the organisms were distinctive in their mode of growth, and experiments were made with a view to ascertain whether they were really capable of transmitting the disease, on the human subject the attempt failed, but on white rats there appeared, on the spots where the material of some of the cultures had been rubbed in, scaly patches, over which the hairs at first became yellow-colored, and then fell out The writer reconciles the notion that these micro-organisms have a causal relation to the affection, with the other well proved facts of its association with trophic disturbances (*e g*, vasomotor derangements), by assuming that the occurrence of such disturbance prepares the soil for the growth of the micrococcus Holding such views, he advocates, and has had good results from, epilation and the use of corrosive sublimate, and also urges the importance of cleanliness in the use of brushes, etc, as a prophylactic measure —*The Lancet*, March 28, 1885

A LITTLE-KNOWN SYMPTOM OF MENINGITIS —It is well known that most cases of tubercular and epidemic cerebro-spinal meningitis exhibit the classical symptoms of rigidity of the neck and back, which on the other hand does not characterize cases of purulent secondary meningitis In nearly all these cases, under ordinary circumstances, the extremities remain supple, but contractures have been observed in a few If, however, a patient with meningitis who presents this dorsal stiffness be raised up and made to sit on the edge of the bed, the rigidity becomes much more intense, and, what has hitherto escaped notice, contracture in flexion sets in at the knees, and sometimes at the elbows also This symptom seems to depend on the flexion of the thigh on the trunk proper to sitting If flexion is brought about while the patient is lying down, the contracture sets in, while the contracture vanishes when the patient stands upright But it cannot while the patient is reclining, be provoked by mere compression of the sciatic nerves Contracture of the limbs, like that of the back and neck, characterizes the whole course of the disease, it outlasts the fever, and is demonstrable in advanced convalescence It has nothing in common with that rigidity of the back which may be induced in very old or very young patients who are suffering from some feverishness or from alcoholism This, which comes on when the attempt is made to raise the patient in bed, is nothing but an instinctive resistance to movement of uncertain occurrence

Since 1880 Kernig has had the opportunity of observing fifteen cases of undoubted meningitis, viz thirteen of infectious cerebro-spinal meningitis, one of tubercular and one of purulent cerebral meningitis with chronic parenchymatous nephritis In every case the new symptom was noticed In all other diseases, where the symptom was sought, it was absent, except in six cases of doubtful diagnosis, in which contracture of the legs occurred when the patient sat upright In five of these, some serious affection of the cerebral or spinal meninges was discovered *post mortem* — œdema, pachymeningitis hæmorrhagica, thromboses of sinuses—and even in the sixth there was hyperæmia of the pia mater —*Berlin klin Wochenschrift*, Dec 9, 1884, *Cincinnati Lancet and Clinic*, Feb 28, 1885

WHITE OF EGG IN TREATMENT OF DIARRHŒA —Celli recommends this remedy in chronic diarrhœa especially if phthisical The whites of eight or ten eggs are beaten up in water Oj, so as to form an emulsion, a little laudanum and a little flavoring extract added, and the whole taken in 24 hours

SURGERY

ANEURISM OF THE POPLITEAL ARTERY —DR W H CARROLL, of Paterson, reports the following case occurring in the service of Dr C S Van Riper, at St Joseph's Hospital, in that city The patient, a laborer, had noticed, for three months prior to admission to hospital, a swelling on the inner and posterior surface of the thigh, which was quite painful when the limb was flexed On examination a small oval tumor, about the size of a pigeon's egg, was found lying a little to the inner side of the popliteal space A distinct heaving impulse was felt on palpation, and on auscultation a bruit was perceptible Several exostoses were felt on different parts of the limbs A diagnosis was made of aneurism of one of the recurrent or lateral branches of the popliteal artery Twelve days after admission the patient, while sitting in a chair, experienced suddenly a severe pain in the tumor, which became greatly enlarged and inflamed Dr Van Riper, who saw the case two days later, pronounced it one of rupture of the aneurismal sac, and proposed operation On the following morning, the patient being etherized, an incision, six inches in length, was made through the skin and subcutaneous tissue The muscles being retracted, the sac was exposed, and was found filled with a quantity of dark, clotted blood This was turned out and the sac was thoroughly washed with a two and a half per cent solution of carbolic acid It was found that the rupture had been caused by the pressure of an exostosis situated near the inner bifurcation of the linea aspera This was removed by the bone-forceps, and the femoral artery was then ligated at the lower end of the Hunterian canal and at the lower boundary of the popliteal space The Esmarch bandage being then removed, it was found that a small opening existed in the popliteal vein An attempt was made to ligate the vessel, but its coats were so soft that the ligatures would not hold The vein, and as much as possible of the surrounding tissues, were then seized by the clamp-forceps and the latter were left *in situ* The edges of the wound were then approximated by silk sutures, and dressed with iodoform and absorbent cotton The patient was somewhat exhausted, but rallied under the influence of stimulants On the sixth day the clamp was removed The wound healed kindly, and the patient made a good recovery —*The Medical Record*, April 4, 1885

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE, INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any date The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO, ILLINOIS

SATURDAY, MAY 30, 1885

ACTION OF THE AMERICAN MEDICAL ASSOCIATION REGARDING THE ARRANGEMENTS FOR THE INTERNATIONAL CONGRESS OF 1887

In discussing this subject we have but one object in view, namely, to make plain, if possible, the present condition of the work of organization, and the best mode of carrying it forward to a successful result Consequently we shall make as few personal allusions as possible, and assume that all parties have been actuated by good motives, and an earnest desire to make the International Congress to be held in the capital of our own country in 1887 fully equal in all the elements of success to any of the meetings that have preceded it

The leading facts are, that at the meeting of the American Medical Association in Washington, in May, 1884, the President, in his address, called the attention of the Association to the propriety of extending an invitation to the Congress then soon to assemble in Copenhagen, to hold their next meeting in this country That part of his address was referred to a special committee, which, at a subsequent stage of the proceedings, submitted the following report

Resolved, 1 That a committee of seven, of which Dr Austin Flint, the President of the Association, shall be a member, shall be appointed by the President

2 It shall be the duty of this committee to extend, in behalf of the medical profession of the United States to the International Medical Congress, about to meet in Copenhagen, a cordial invitation to have the next International Medical Congress meet at Washington, D C, in 1887

Resolved, 1 That the committee shall elect its own officers, and that, in case the invitation is accepted, it shall proceed to act as an Executive Committee, with full power to fix the time and to make all necessary and suitable arrangements for the meeting of such Congress, and to solicit funds for that purpose

2 That the committee shall have power to add to its membership, to perfect its organization, and that to meet the preliminary expenses of printing, postage, etc, the chairman of this committee is authorized to draw upon the treasurer of this Association for an amount not exceeding four hundred dollars

This report was adopted without opposition or discussion, and the President subsequently announced the proposed committee as follows

Austin Flint, Sr, of New York, I Minis Hays, of Philadelphia, L A Sayre, of New York, C Johnson, of Baltimore, Geo Engelmann, of St Louis, J M Browne, of U S N, and J S Billings, of U S A, to whom H F Campbell, of Augusta, Ga, then President-elect of the Association, was added by vote of the Association, making the committee consist of eight members

The committee thus constituted, proceeded to Copenhagen, extended the invitation according to instructions, and it was accepted In accordance with the foregoing resolutions, the committee, soon after the return of its members, selected fifteen or twenty prominent members of the profession to constitute additional members of the committee The committee, thus enlarged, was requested to meet in full session in the city of Washington on the 29th of November, 1884, to commence the preliminary work for organizing the proposed Congress

At the time appointed a majority of the members of the enlarged committee were present, and entered earnestly upon a consideration of the work committed to them A sub-committee of the original committee of eight had outlined a plan of organization and a system of rules, in part, at least, selected from those adopted by previous Congresses in Europe

This plan made no provision for representation by delegates from any medical society organizations, either state or national, but contemplated the selection of officers for the Sections, and important committees, solely on account of their reputation at home and abroad, without regard to their membership in medical societies or the sections of the country in which they lived, while the American part of the membership of the Congress would consist of such parties as the Executive Committee should invite After a pretty free discussion the essential features of this plan were set aside by the adoption of resolutions providing for a full and uniform representation by delegates from all the regular and legitimate society organizations, national, state, and local, and a strong effort was made to have the selection of officers of Sections so distributed as to fairly represent the whole of our country The latter, however, was not as successful as we desired The time of the meeting of the general committee was necessarily limited, and a large part of the details had to be left with an Executive Committee of five, whose work was subject to the approval of the general committee After adopting the general rules, as since published, and filling some of the offices, the general committee adjourned, subject to the call of the Executive Committee, but with the full expectation of meeting again in New Orleans during the meeting of the Association, if not sooner called together by the Executive Committee The latter committee, however, regarded their work so far advanced as to render a meeting of the general committee in New Orleans unnecessary, and proceeded to the publication of their work as far as completed This, we think, was an unwise step We think the general committee should have assembled in New Orleans and reported its action to the Association before its formal publication to the world It would have afforded an opportunity for conferences and adjustment of differences at once, and would have avoided the charge of having ignored the body from which its existence and all its powers had been derived If an error, however, it was certainly one of judgment and not of design Regarding the power conferred upon the committee by the resolutions we have quoted, as ample and unreserved, the members were simply intent on the early and efficient discharge of the duties imposed on them, without unnecessary expenditure of time and money

The idea that the members of the committee having charge of the work of organizing the International Congress had acted from any other motives than an honest desire to execute the trust committed to them to the best of their ability, is without the slightest foundation, and should be discarded by every honorable mind But it is plainly evident both from the expressions in a large part of the medical press, and from the sentiments freely expressed in private conversation, as well as publicly, that two important errors had been committed in the work of the committee The first was committed by the original committee of eight members appointed at Washington, in the selection of additional members of their own body Actuated, perhaps, by an injudicious liberality, it is claimed that they included in their selection some who had placed themselves in antagonism to the national and state organizations of the profession, by openly repudiating the national Code of Ethics, which constitutes the common bond of union for all these organizations

By this step, they placed the American Medical Association, from which the committee had derived all its power, in an inconsistent position, and failed to sustain the large majority of the profession in the state of New York who had faithfully sustained the national code, and maintained their fraternal relations to the national and state organization of the whole country

The second alleged error consisted simply in a failure on the part of the enlarged committee to appreciate the importance of so distributing the officers of Sections as to represent and interest, as far as possible, the members of the profession in all the leading geographical divisions of our country

That the chief object of the Association in its action in New Orleans was to correct these alleged errors, is evident from the character of the action taken, which consisted solely in the adoption of the two following resolutions

> *Resolved*, That the committee appointed by this Association to arrange for the meeting of the International Medical Congress in America, in 1887, be enlarged by the addition of thirty-eight members, one from each state and territory, the army, navy, and marine hospital service, to be appointed by the chairman at this meeting, and that the committee thus enlarged shall proceed at once to review, alter, and amend the motions of the present committee as it may deem best

This was adopted during the general session of the second day, when the whole subject was under discussion The second resolution was proposed and adopted almost immediately after the opening of the general session on Friday morning, the last day of the meeting, and is as follows

> *Resolved*, That the committee appointed in pursuance of a resolution adopted by this Association, April 29, 1885, to constitute an addition to the original committee of seven, previously appointed to invite and make arrangements for the meeting of the International Medical Congress to be held in Washington, D C in 1887, be, and the said committee is, hereby authorized and empowered to select a chairman and secretary and to fill all vacancies that may

occur by death or inability to attend the committee meetings, and to appoint the officers of the Congress

A fair and unprejudiced study of these resolutions will show their practical effect to be the elimination from the previously existing committee on the organization of the next International Medical Congress, of all those who had been added by the original committee of eight, appointed at the meeting in Washington, and the substitution of the one from each state, territory, etc, just appointed by the Association in New Orleans, and whose names are given on page 552 of this JOURNAL for May 16, 1885 Whatever doubts might have existed in regard to this point from the language of the first resolution are dispelled by the more explicit designation of the "original committee of seven," in the second

The committee thus constituted of the eight originally appointed at the meeting in Washington in 1884, and the thirty-eight assumed to have been appointed by the meeting in New Orleans in 1885, according to these resolutions, is now the existing committee on the further organization of the International Medical Congress of 1887, and is authorized to fill any vacancies that may occur, and "review, alter, or amend" any of the acts or work performed by the committee previous to this change

There is nothing in the resolutions quoted, or in any other action of the Association during the meeting in New Orleans, that directly destroys the previous official organization of the committee, or nullifies a single item of the work already done towards organizing the Congress

On the contrary, the Association has simply assumed and exercised the right to alter the *personnel* of the committee, by making the additions to the original committee of invitation representatives of each state, instead of selections from a more limited portion of the country In looking over the list of those selected to represent the profession of the several states, we recognize in nearly all of them men who are well known and in good standing in their respective states, men of sound conservative qualities, who, if promptly supplied with printed circulars containing the regulations already adopted, and invited by the original committee, through their officers, to an early meeting at Washington, or any other suitable place, like Chicago, for example, will be found disposed to make no unnecessary changes in the work already done, and will cordially and earnestly and intelligently work for giving to the Congress the highest degree of success If there are in the list two or three whose zeal may be largely in excess of their wisdom, they certainly constitute so small a minority that they should be capable of doing little or no mischief Nothing, however, could give such persons so good an opportunity for making mischief of a serious character, as for the original committee to hesitate in accepting the new order, and to be dilatory in moving forward as the recognized leaders in the further prosecution of the important work before them

THE EFFECT OF THE SALINE INGREDIENTS OF THE BLOOD UPON THE CONTRACTIONS OF THE HEART

Such is the title of a paper by DR SIDNEY RINGER in the *British Medical Journal*, of April 11, 1885 It is very well known that if blood or an artificial circulating fluid be sent through the cavities of a frog's heart, entirely detached from the body, the heart will continue to beat for some hours, and that this is also true of portions of the heart, as the lower third of the ventricle, which has long been supposed to be free from nervous ganglia "Here, then, we have a means of testing with facility the immediate action of a drug on the whole heart, on the ventricle, or on a portion of the ventricle" He proposes, in this communication, to describe the behavior, "in physiological doses, of the natural salts of the circulation—the salts proper to the blood itself—on the frog's ventricle"

When pure water is made to flow through the ventricle, the condition known as water-rigor soon ensues, and the contractions cease If common salt be added to distilled water, in the same proportions in which it exists in the blood, the contractions grow more weak, contractility finally ceases, and the ventricle is arrested in diastole, a contraction cannot be now excited by even a strong galvanic induction shock "The addition of any other of the saline constituents of the blood, save one, will not restore the suspended contractility The only constituent which will restore the suspended contractility is lime Spontaneous contractions at once return when the physiological proportion of lime salt is added to the solution "Lime salts, therefore, will sustain the contractility of the ventricular muscular tissue, and indeed are essential to the maintenance of the contractility In fact, without a lime salt, no single salt, nor all the saline constituents of the blood combined, can sustain contractility "

But the lime salts, though able to sustain the contractility of the heart, or to provoke it when it has disappeared, cannot maintain the circulation, "for the diminution of the dilatation, owing to the fusion of the beats, by a half or two-thirds, lessens correspondingly the amount of blood the ventricle can receive, and, therefore, propel into the arterial system " He shows that a potassium salt, in physiological quantity, obviates this difficulty, "and insures a perfectly natural contraction " The fusion of the beats is caused by the commencement of a contraction before dilatation is completed, but the addition of the potassium salt accelerates contraction, partially antagonizing the action of the lime salt, and the contraction is natural "Thus we have produced, by the combination of calcium chloride, potassium chloride, and sodium chloride, a neutral solution capable of sustaining the ventricular contraction, and of producing perfectly normal contractions " But this fluid is neutral *in* reaction, and though the contractions may continue for a while with a neutral fluid, they finally grow weaker and weaker, it is, therefore, necessary to add that which will alkalinize the fluid—a physiological quantity of sodium bicarbonate This effect of the sodium bicarbonate is due, the author thinks, to the fact that it neutralizes the acid developed in the contracting ventricle itself, for the addition of a very small quantity of acid to a circulating fluid is sufficient to arrest the contractions

" The normal contraction of the ventricle, then, is the result of a mutual antagonism between calcium and sodium bicarbonate salts on the one hand, and potassium chloride on the other We can modify, in various ways, the character of the contraction, by altering the normal relative quantities of these salts On this physiological antagonism the proper contraction of the heart depends In conclusion, let me urge a practical suggestion, which seems to spring naturally from these experiments In cases of profuse hæmorrhage, as in flooding, or in the excessive alvine discharges of cholera, it is of cogent importance that we should employ a fluid suitable to the life-or-death case The foregoing inquiry points out that an effective injection should contain not only sodium bicarbonate, but likewise physiological quantities of salts of calcium and potassium "

SOCIETY PROCEEDINGS.

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, May 7, 1885

The President, B F Baer, M D, in the Chair

The President read the following report of a cure of

SECONDARY OVARIOTOMY

and exhibited the specimen, a small papillomatous cyst

Mrs S , æt 33, married first at fifteen years of age, became a widow at twenty and remarried at twenty-six Had one child only, by the first marriage, seventeen years ago Enjoyed good health, except that she has always been very nervous, until nine years ago, when she suffered from an inflammation in the pelvic region, which confined her to bed six weeks Has suffered ever since from profuse and frequent metrorrhagia, with paroxysms of left ovarian pain About four years ago she also began to suffer from hysterical attacks of an epileptiform character Two years after these nervous manifestations appeared—in the spring of 1883—she noticed that her abdomen was beginning to swell The growth continued to increase, and with it the metrorrhagia, pain, and epileptiform seizures She lost flesh rapidly, becoming weak and bedridden

In January, 1884, ovariotomy was performed After her recovery, which was slow, and despaired of for some time, she enjoyed comparatively good health The menstrual flow became regular and painless and the convulsions ceased entirely But in the September following she had another attack of uterine hæmorrhage which lasted three weeks Pain also returned, in character like that attending the development of the first tumor, but it was now located on the right side instead of the left

In October, she consulted my friend, Dr D J Miller Pain and hæmorrhage were at this time very severe, and she was weak and anæmic On examination, Dr Miller found an abnormal development, in the region of the right broad ligament, about the size of an egg This was closely adherent to and apparently within the folds of the ligament It was very tender to the touch, but there were no constitutional evidences of acute inflammation Shortly after this she had a recurrence of the epileptiform convulsions Treatment seemed to control the symptoms for a time, but from the latter part of December they increased steadily The constant drain from the metrorrhagia, the increasing violence and frequency of the paroxysms of pain, and the convulsive attacks began to tell in a marked degree upon her health in loss of flesh and strength In February, 1885, through the kindness of Dr Miller, I saw the patient At that time the growth had attained the size of a large orange, it occupied the right side of the pelvis, displacing the uterus to the left, and seemed to be closely attached to the broad ligament and the uterus I agreed with Dr Miller's diagnosis of ovarian cystic disease, and although the tumor was evidently adherent to the uterus and broad ligament and therefore probably did not have a pedicle, I advised its removal for the relief of the grave symptoms

Operation, April 7, 1885, at 12 M, assisted by Drs D J Miller, Ed H Small, and G P Perley, in the presence of Drs B C Miller and Plummer *Incision*, one-half inch to right of old cicatrix, three inches in length, passing through the body of the right rectus muscle After clamping all bleeding vessels, I opened the peritoneal cavity and found that the omentum was adherent to the line of union of the first incision, which had been about eight inches in length, and that adhesions also existed between portions of intestine and the location of the former pedicle on the left of the uterus

The necessity of pushing the omentum and intestine aside to get at the tumor, and fear of breaking the adhesions by so doing, together with the small size and deep seated location of the cyst, made the required manipulations exceedingly difficult When I obtained a view of the upper surface of the tumor, it looked not unlike the pregnant uterus in color and vascularity Its outer wall was interlaced with a network of veins, some of them as large as a quill Exploration with the fingers showed it to be so deep in the pelvis and so closely attached to the uterus, Fallopian tube, and broad ligament that they seemed to be one mass, the whole attached by a broad surface to the pelvic floor The prospect of completing the operation was now anything but bright, because of the danger of opening this very vascular wall for the purpose of enucleation But I began with an attempt to separate adhesions, and after patient, gentle, but persistent efforts, they began to yield and I was finally enabled to get two fingers around the posterior surface of the tumor, without producing much hæmorrhage I next passed a small trocar of the aspirator and drew off about six ounces of a straw-colored fluid, this gave me a little more room, and I now hoped to be able to remove the tumor entire, and with that purpose in view I endeavored to still further separate it from its attachments, but so much hæmorrhage occurred that I was compelled to desist I next very carefully broke the outer wall of the cyst with my finger and proceeded to shell out the lining membrane, but it was so friable that it gave way and my finger entered the cavity of the partially collapsed sac I found it filled with a papillary, cauliflower-like growth This I removed to prevent its escape into the peritoneal cavity, where I feared it might propagate by contact, if lost and allowed to remain I then completed the enucleation of the internal surface of the tumor The thick and vascular external wall was now so thinned and drawn out that it formed a sort of pedicle This I transfixed and ligatured, cutting away the redundant portion Then after thoroughly removing all foreign material, I closed the abdominal incision with seven silk sutures and returned the patient to bed

She recovered promptly from the ether, showing no evidence of shock At 8 P M her temperature was normal and pulse 126 On the evening of the second day her temperature rose to 101° and a free metrorrhagia occurred The temperature fell within a few hours to 99 2-5° and did not afterward rise above 100°

On the fourth day I found union so complete and solid that I removed the sutures She sat up on the nineteenth day and has now entirely recovered from the operation The result on the hystero-epilepsy and other nervous symptoms will be reported later by Dr Miller

It is of vital importance to every woman who must submit to the operation of ovariotomy, that the condition of the opposite ovary should be thoroughly investigated If found to be diseased, even slightly, I think it should be removed to shield the patient from the danger of a probable second operation But when such nervous symptoms as existed in this case are present, though the opposite ovary should be found to be healthy, I think it is imperative upon the surgeon to remove it with the hope of relieving these symptoms It does not add much to the danger of the operation, indeed, in my own practice it would seem to have had the reverse effect, for I have lost but a single case of double ovariotomy, though about one-third of my cases have been of that character

Dr Montgomery takes exception to the statement of advisability of removal of the other ovary The second ovary, even if slightly diseased, may be the source of repeated pregnancies He had, in one case of ovariotomy, left the other ovary, although it was enlarged and contained several small cysts, pregnancies and the delivery of living children occurred subsequently, but there has been no sign of another ovarian tumor In some cases it might be advisable, but no such fixed rule should be formulated

Dr Goodell has performed 144 ovariotomies, and has had secondary operations in two of them in which the remaining ovary was apparently healthy at the time of the primary operation In all cases after the menopause he now removes the second ovary, even if it seems to be perfectly healthy

The President was much gratified to have Dr Goodell's indorsement of his opinion upon the advisability of the removal of the second ovary

Dr Montgomery reported

AN OOPHORECTOMY

Mrs C, æt 42, consulted me in November, 1884, with the following history She is married, but never became pregnant Menstruated once when fourteen and not again until seventeen, when she became regular, but the flow was always preceded for a few days by severe cramp-like pains which continued during the menstrual period In her earlier menstrual life the flow was quite free, but later it has been scanty The pain was felt in the back and in each inguinal region She had an attack of small pox during her fourteenth year, but otherwise had enjoyed good health until a few years ago Two years since she noticed that she was losing flesh, her appetite became poor, she had constant nausea and frequent vomiting, the pain in the back and inguinal regions occurred in the after part of each day, was exceedingly distressing, and interfered with her rest at night This pain was greatly aggravated by walking, standing, riding in cars, and by coition

When she came under his care she had lost considerable flesh, had a very irritable stomach, and was not free from pain an entire day at a time The uterus was retroverted, apparently bound down to a thickened mass posteriorly, and presented a catarrhal endometritis Pressure upon the fornix vagina gave rise to severe pain Some efforts were made to raise the uterus by means of tampons of cotton, but they only increased the pain The patient soon became unable to move about and was confined continuously to bed The pain was constant during the greater part of the twenty-four hours, so that during the last three months she had had but three nights of uninterrupted sleep, though morphia was given daily The trouble, from the first, had been ascribed to ovarian disease, and every effort was made to improve her condition preparatory to the removal of the ovaries, but without avail Her emaciation became extreme, when it was decided to run the risk of the operation At this time her menses had been absent about two months

On April 18, assisted by Drs W H and C B Warder and Dr Martin, the ovaries were removed They were situated in Douglas' cul-de-sac behind and beneath the uterus, and were slightly adherent Both ovaries were enlarged and hard, and presented a number of small cysts The latter were found also in the broad ligaments The wound was closed with silk sutures and dressed with salicylated cotton Her subsequent comfort was very much interfered with by the pressure from lying, which, in spite of all precautions, produced a small slough over the sacrum Her highest temperature, 102 degrees, was reached at 6 P M on the 20th The wound healed by first intention The sutures were removed on the sixth day After the third day no anodyne was given, but she slept nine hours each night All her old distressing symptoms vanished as if by magic, her appetite and digestion became good, and she began to improve in general appearance There has been no recurrence of the pain since the operation

Dr Henry Beates reported a case of

CONDYLOMATA URETHRÆ,

it having closely simulated epithelioma in appearance As the routine notes will be uninteresting, they will be omitted Mrs D, multipara, æt 29, sought relief from an intense dysuria which was of a little more than a year's duration A history indicating an attack of gonorrhœa, while not positive, was sufficient to render it probable A year or two after marriage she was attacked with either acute cystitis, urethritis, or gonorrhœa, which disappeared, but was followed after a lapse of two or three months by frequent micturition and vesical tenesmus After a few weeks a urethral discharge, purulent in character, was noticed, followed soon after by the development of condylomata on the margin of the meatus urinarius Coincidently the tenesmus and dysuria increased, and by interference with sleep, and suffering entailed, resulted in impairment of health Remedies had been prescribed, but no examination of the local condition made. When first seen, the patient was almost constantly harassed with tenesmus, and was suffering intensely She would retain the urine as long as possible, and void it only when the voluntary control of the bladder was overcome by the vesical contraction Examination revealed numerous-ous *condylomata originating from the margin of* the meatus and interior of urethra The meatus and its surrounding neoplasms were bathed in a sanguineo-purulent fluid, and the inferior border and membrane of vestibule were the seat of destructive ulceration This latter so closely simulated the appearances seen in ulcerating epithelioma that that diagnosis was confirmed by a gentleman who saw the case with me The external growths were snipped off with scissors and the bleeding bases staunched with nitric acid After a short preparatory treatment anæsthesia was produced, the urethra dilated, and the condylomata, which were numerous, and derived from the urethral membrane only, removed with the dull curette A curious point was the distinct demarcation of the morbid condition, which was limited at the vesical terminus of the canal, and the perfect freedom of the vesical membrane from the growths A solution of chloral, iodine, and carbolic acid was thoroughly applied and had the effect of stopping hæmorrhage The ulcerated tissue and a portion of the urethral floor were incised, and the margins treated with nitric acid. The microscope revealed hypertrophy of the mucosa, with increase of epithelial elements and capillaries Four years have elapsed, and no evidences of return have presented themselves I believe the cause of these condylomata to have been a specific urethritis which, becoming chronic, by its irritating discharge determined the growths

LEIOMYOMA UTERI

Mrs M German, æt 37, mother of one child, history free from neoplastic predisposition At thirteen the catamenial function was started and became regular soon Congestive dysmenorrhœa for a few months at first, once every twenty-eight days, lasting four days Married at nineteen, conceived two years later, delivery at term after a tedious instrumental labor About a year later a steadily increasing menorrhagia commenced, with leucorrhœa She was unsuccessfully treated for this for two years, and came under the care of a well known practitioner of Philadelphia, since deceased, who introduced pieces of lunar caustic into the uterine cavity and allowed them to remain there until dissolved After a few weeks the menorrhagia was relieved, and fair health was enjoyed for more than two years The hæmorrhage recurring she again visited Philadelphia, and was treated with the dull curette and endometrical applications She remained free from her trouble for three years, during which time she met with financial reverses and was subject to the depressing influence of trouble She had never been impregnated since the birth of her only child Hæmorrhage recurring, she entered a hospital in western Pennsylvania, where she remained two years under unsuccessful treatment All treatment was abandoned, and the hæmorrhagic condition suffered for nearly five years, when threatening death brought her again to Philadelphia She attended the Nurses' Home Charity where I saw her, as an assistant in 1879 Her treatment included iodine to the cavity, ergot and gallic acid internally, and the curette In October of the same year she placed herself under my care I was called to see her and found her in profound syncope She had occasionally manifested mental aberration, due entirely to the sanguineous state, and for two or three months was bleeding almost constantly A laminaria tent was promptly placed, and a thorough examination made, which disclosed the presence of a neoplasm occupying the right lateral and posterior uterine wall Its contour was regular, base broad, consistence that of uterine tissue Its submucous location was determined and enucleation effected The growth was as large as a doubled fist, and required division before it could be delivered It weighed nine ounces Profuse bleeding occurred during the operation, and the shock was alarming, reaction, however, occurred Microscopic examination revealed a typical leiomyoma uteri of the telangiectatic type When last heard from, a few months ago, she was enjoying excellent health

Dr Goodell exhibited specimens of

PAPILLARY OVARIAN CYSTS

removed from three women, with the following history The first one had been removed on March 29, at the University Hospital, from a woman who had borne two children by her first husband, but had not conceived since her second marriage, seven years ago The cyst was of the right ovary, weighed about twenty pounds, and its lower portion had to be enucleated from the broad ligament, which overlapped it It had burst a few hours before the operation, and the abdomen was filled with a dark, syrupy fluid The special point of interest was the papillary growths found in large numbers both on the inside and the outside of the cyst wall The broad ligament and pelvic peritoneum were also studded with them, and the left ovary, otherwise healthy, was so bound down and enveloped with them as to make its removal impossible The woman's convalescence was uninterrupted, yet Dr Goodell could not but believe in the malignancy of the cyst, and he was disposed to attribute the diffused patches of papillomata to infection from some previous rupture of the cyst wall, of which, however, there was no history

The next two cases were operated on at his private hospital on the same day, April 12, and both did well In each one both ovaries were affected with papillary growths, while in one of them the right cyst had evidently burst some weeks previously, as the abdomen contained a dirty fluid, and apart from the history of sudden abdominal pain, the ovary was represented by a mass of papillomata about the size of one's fist, around the base of which were the remains of the cyst wall These two cases he classed benign because there seemed to be no infection outside of the ovary They were probably cases in which the degeneration began at the hilus of the ovary

The President remarked that these growths were found in almost all small ovarian cysts, especially when they were enveloped in the broad ligament They are not malignant, but are of very rapid growth and are accompanied by pain and local congestion

Dr Parish, in one of his patients, had found an ovarian tumor as large as a man's head The other ovary was the size of a hen's egg, and its walls had undergone calcareous degeneration The pedicle was short and calcareous, suppuration followed its removal, and a fistulous opening was left, probably depending on the presence of the calcareous matter

Dr Goodell also exhibited a calculus weighing over one and a half ounces, which he had removed a week ago The lady was seventy-four years old, and was also aphasic and paralyzed from a stroke of apoplexy received five years previously Ether was therefore given with extreme caution, and fortunately no bad results followed its use Finding the stone to be a very large one, Dr Goodell decided not to crush it, but to remove it by lithotomy This was accordingly done, but a good deal of difficulty was experienced in coaxing the stone through the opening On account of the cystitis present, the opening into the bladder was left unclosed, except at three points where sutures were introduced merely to stop troublesome hæmorrhage The relief was immediate and the convalescence uninterrupted

Dr W H Parish reported an

ALEXANDER'S OPERATION

In December, 1881, Dr William Alexander, of the Liverpool Parish Infirmary, performed for the first time what is now known as the Alexander operation His patient had a retroflexed and prolapsed uterus and a cystocele He effected a permanent replacement of the uterus, but did not get rid of the cystocele In 1884 he published his book on "The Treatment of Backward Displacements of the Uterus, and of Prolapsus

Uteri by the New Method of Shortening the Round Ligaments." He there reports twenty-two cases operated on by himself, and other cases operated on by other surgeons. The conditions warranting the operation—conditions which the operation is expected to relieve—are posterior displacements, retroflexion or retroversion of the uterus. The operation is of little service in prolapse unaccompanied by either posterior displacement. It does not remedy a cystocele or a rectocele, neither does it take the place of an operation for remedying a laceration of a perinæum. The operation as recommended by Dr. Alexander consists in making an incision down upon the external abdominal rings, finding and seizing the ends of the round ligaments, drawing them out until taut, the uterus being at the time held in a position of anteversion by means of a sound in its cavity. The ligaments are then stitched in their taut condition to the columns of the rings and the uterus kept from dragging too greatly on the round ligaments during the subsequent two months by means of a Hodge pessary, sometimes aided by a stem pessary. The abdominal incision heals generally by granulation, rarely by first intention. The relief of the uterine displacement in most of the cases reported seemed permanent, at least, the displacement had not recurred up to date of publication. The operation is a bloodless one, or nearly so, the dangers are trifling, and the results in favorable cases were satisfactory in the hands of Dr. Alexander and other English operators.

On December 30, 1884, I did the Alexander operation on a patient in the Philadelphia Hospital. Her general condition was not very favorable for any operation. She was about 40 years of age, of small stature, and in a debilitated condition. She suffered with a chronic bronchitis, the uterus was in a condition of retroflexion and retroversion, and was also so prolapsed as to approach ordinarily the vaginal outlet, and when engaged in severe labor protruded, according to the patient's statement, but the latter statement may have been erroneous, as there was a rectocele of about the size of a hen's egg. There was also an old laceration of the perinæum, one that extended nearly into the rectum. I performed the Alexander operation because of the posterior displacement. I did not expect to remedy, except to a limited extent, the prolapse of the uterus, or at all to get rid of the rectocele. I expected that a subsequent operation would be performed for the restoration of the perinæum.

After cutting down upon the right external ring, I found no difficulty in recognizing the terminal portion of the round ligament or in causing it to run through the canal when drawn upon by the finger, it was about the size of a crow quill and did not suggest strength, it appeared in a condition of atrophy from the stretching to which it had long been subjected. The left ligament was also easily recognized, but it would not run through the canal. It could not be drawn out, and doubtless was adherent to the canal, and also held in the pelvis by abnormal adhesions dependent upon a pelvic cellulitis of old date. The right ligament was drawn out about two inches and cut off. The left one was shortened about half an inch. While the ligaments were being drawn out the uterus was held anteriorly in the median line by means of a uterine sound. The round ligaments were then stitched to the columns of the rings, and the abdominal incision closed with silver wire and covered with iodoform dry dressing. A Hodge pessary was introduced, and the patient placed in bed in dorsal recumbency with thighs flexed. The bronchitis was aggravated by the ether, and severe coughing became very troublesome. The concussion of the coughing would at times force out the pessary. The abdominal adhesions healed in about three days by granulation, after limited erysipelas had appeared. The erysipelas was not severe, and was probably dependent upon hospital influences. The posterior displacements were partially relieved, but I do not think the benefit secured to the patient amounted to a great deal. I have seen but one other Alexander's operation reported in this country. I think the value of the operation should be tested. I am not enthusiastic in its favor, but am willing to give it a trial. Certainly it is not difficult, perhaps the chief difficulty consists in recognizing the round ligaments, but they are more easily found in the living than in the cadaver. There is no danger of hæmorrhage, and apparently no danger of traumatic peritonitis. Probably the only source of danger is from septic infection, and this, under favorable surroundings, could scarcely occur.

The PRESIDENT thinks that the operation will find many cases in which it will be valuable, for instance, cases of retroflexion without adhesions, and in which the pessary will get into the angle of the flexion and lose its usefulness, and in which a stem will not stay. It will be less dangerous than Tait's plan of laparotomy and stitching the uterus to the abdominal wound.

DR. PARRISH remarked that Dr. Alexander recommended that both round ligaments should be drawn out before either of them were stitched.

DOMESTIC CORRESPONDENCE.

LETTER FROM PHILADELPHIA

(FROM OUR OWN CORRESPONDENT.)

Annual Conversazione at the College of Physicians—Sketch of the College—The Mutter Museum—The Library of the College—Commencement at the University—Election of Emeritus Professor of Physiology—Regulation of Vivisection—Resignation of the Professor of Anatomy in the Jefferson Medical College.

On the evening of April 16, there was held at the College of Physicians of this city what was called an "Annual Conversazione", in plain English, a meeting at which scientific and social entertainment were blended For the scientific part Dr S Weir Mitchell and Dr Edwin T Reichert exhibited specimens of snake poisons and drawings showing their effects, Dr E O Shakespeare and Dr H F Formad showed apparatus for sterilizing organic infusions, various cultures of bacilli, and the bacillus of tuberculosis and of cholera, etc, under the microscope, Dr J Gibbons Hunt exhibited other microscopical specimens, and Mr Holman showed the circulation of the blood with the lantern microscope Afterward there was a supper During the whole time the Mutter Museum and the library of the college were open for inspection Besides the Fellows of the college, there were present a large number of invited guests, including distinguished medical men from other parts of the country and distinguished laymen The whole affair was brilliant and successful, and calculated to accomplish its purpose, namely, to interest and intertain the Fellows of the college and the guests, and to increase the general knowledge of the character and objects of the college This institution is not as well known as it ought to be, even in this city, and much less throughout the country Its history and present resources are deserving of a more extended notice than I can give in a letter, but I think it will interest your readers to learn something about them, as they have a much more than local importance

The College of Physicians of Philadelphia (which is not a teaching institution, but a "college" in the old and classical sense of the term) was founded in 1787, and incorporated in 1789 The list of names of the founders includes those of John Redman, William Shippen, Adam Kuhn, John Morgan, Benjamin Rush, James Hutchinson, Robert Harris, Nathan Dorsey, and Caspar Wistar The objects of the college were to study the facts of medicine, to accumulate information from this and other countries, and to become a centre of scientific and ethical culture In an address delivered in 1884 by Professor Alfred Stille, at that time president of the college, containing an excellent history of its doings up to that time, the statement is made that though it experienced periods of diminished activity, "yet, if the list of the Fellows is examined at any period, it will be found to contain the names of nearly all the physicians of Philadelphia who possessed unusual merit" And a glance over the whole list shows such names as Hodge, Chapman, Parrish, Hartshorne, Charles D Meigs, George B Wood, Gerhard, Pancoast, Condie, Mutter, Samuel Jackson, Carson, Kirkbride, Pepper, Goddard, Washington L Atlee, McClellan, Gross, and many men still living and as truly distinguished, whom to name would not be fitting at present Besides this the list of Associate Fellows has always been most honorable The consequence has been that in this city it has always been regarded as a mark of distinction to be a Fellow of the college, and it is the ambition of every earnest and industrious student to have his own name enrolled after those of such honored predecessors Notwithstanding this fact, the College of Physicians has never been regarded as a source of extensive literary productions The mass of medical papers emanates from the more purely literary societies, in which the writers are assured of either a larger audience, as in the County Society, or a selected and specially sympathetic one, as in the various special societies The College of Physicians has been rather a conservator of the most conservative principles of the profession, the maintainer of the highest standard of qualification for its members, and the goal of a proper medical ambition Its comparative cautiousness is explained and warranted by the fact that it possesses, not only the proud inheritance of its traditions, but also a very valuable property

Either of these possessions would justify great care in selecting those to whom the privileges of fellowship should be extended Of the former no more need be said, of the latter much more than there is space for might be said The property of the College of Physicians consists of a fire-proof building, a museum, and a library The building is at the southeast corner of Locust and Thirteenth streets It is now two stories high and is soon to be increased to three stories to accommodate the growing library and museum The museum is that known as the "Mutter Museum," from the name of its founder, the late Dr Thomas D Mutter, professor of surgery in the Jefferson Medical College, who gave his valuable pathological collection, models, charts, etc, used in his lectures, to the College of Physicians, together with an endowment of $30,000, which was to be devoted to the preservation and increase of the museum This fund has been so wisely used that the present value of the museum is very much greater than it was originally It now contains, for example, the very valuable collections of the late Professor Hyrtl, of Vienna, including his marvellous and unique 'corrosion preparations" of the vascular system There is also here his collection of 140 skulls, representing the various races and tribes of the eastern hemisphere, as well as his very interesting collection of the ossicles of the ear from 170 different animals, including those of man The museum also contains a collection of beautiful preparations and pictures illustrating the diseases of the ear, made by Professor Politzer, and purchased at a cost of $800 Other models and specimens illustrate diseases of the skin, eye, etc These number 230, and were made by Baretta and Tramond, of Paris, and cost about $2,000 There is also a fine set of sections of the brain, made by Dr H D Schmidt, and mounted in glass cells, while among the curiosities of the museum is the skeleton of a "Kentucky giant," eight feet in height, and a plaster cast of the Siamese twins, while their double liver, and the connecting band between them are preserved in alcohol in a large jar

Besides the additions which have been made to the Mutter Museum by purchase, it has been enriched by gifts of specimens, and of collections, among which may be mentioned those of Professor Henry H Smith, and Professor W S Forbes, so that it is rich in specimens of vesical calculus, fractures, etc , as well as in models of normal structures All this is free to anyone who is interested in the study of anatomy and pathology The museum is open daily, and the Curator—at present Dr Hinsdale—will offer every civility to those who visit it

The library of the College of Physicians is, next to the library of the Surgeon General at Washington, the largest and finest medical library in the United States It now contains over thirty-three thousand volumes, and over twelve thousand pamphlets It is rich in rare and valuable books, and offers a treasure for research which can only be properly appreciated by those who have tested its resources In addition to the books here on the shelves, the library can draw upon that at Washington, having such relations to this that any book can be obtained from the Surgeon General's library for the examination by any Fellow, or by any person for whom the college is willing to be responsible And this brings me to the feature which makes this library of interest to the whole profession Its use is not restricted to the Fellows of the college Any person who comes properly recommended can use it It is absolutely free to all, under suitable regulations This fact is becoming better understood than it used to be, and the number of those who avail themselves of the opportunities for research which this library offers is continually increasing

The present size of the library is mainly the result of a very rapid growth during the past twenty five years Although the idea of forming a library was proposed as early as in 1788, yet after various vicissitudes the whole collection, in 1836,—nearly fifty years later,—numbered only two hundred and ninety-one volumes In 1846 the number was about six hundred, in 1855, seventy years after it was started, it comprised only seventeen hundred volumes Several large donations and bequests now came to swell the number of books, and, in 1863, when the college entered its present building, it owned over four thousand volumes In 1864 and 1865 Dr Samuel Lewis gave to the college twenty-five hundred books, a gift which has been followed by continued benefactions, until at present there are in the library over eight thousand books which have been presented by Dr Lewis, many of them extremely rare and valuable, and all selected with the greatest care and judgment In addition to the valuable gifts of books which he has made, it would be hard to estimate the worth to the college of the voluntary supervision and fostering care which Dr Lewis has bestowed and still bestows upon the whole library

In 1866 the library was first made easy of access by the appointment of a paid librarian, who should be in attendance daily—the work of distributing the books before this having been performed gratuitously and irregularly The first librarian, under this arrangement, was Dr Robert Bridges, whose once familiar form and gentle manner are now no longer among the attractions of this, or any other earthly place How rapid has been the recent increase of the library may be gathered from the fact that last year there were added to it over seven thousand volumes, and that in the first three months of this year there have been added over thirteen hundred new books These large figures have been made up by special gifts, the former including the library of the late Professor Gross (about 5,000 volumes), which was bequeathed to the Academy of Surgery and permanently deposited with the College of Physicians, and a gift of nearly a thousand volumes by Professor Alfred Stillé, while the latter includes a gift of nearly a thousand volumes by Dr I Minis Hays The average regular addition to the library is considerably over a hundred volumes a month Putting all together, then, the library at present contains more than thirty-three thousand bound volumes and over twelve thousand pamphlets, the whole catalogued and most conveniently and accessibly arranged in handsome, well lighted and well ventilated rooms, in a fire-proof building! One thing only remains to be said about the resources of the library, which is that there are on its tables at all times over 250 current medical journals, from all lands where there is any medical science or experience Greek, Russian, Swedish, Danish, German, French, Spanish, Italian, English, and American, all are to be found here When I repeat that the whole is at the service of anyone who desires to avail himself, or herself, of its benefits, need I apologize for occupying so much of a letter with an account of it and the College of Physicians which has gathered and which maintains it?

We have had nothing of much moment except the commencement of the University of Pennsylvania, at which 107 men took the degree of M D , and 49 the degree of D D S Professor Agnew made the parting address, and charged the new men to stand by the old code

The more recent events in the University are the election of Dr Harrison Allen *emeritus* professor of physiology, and the adoption of rules to govern the practice of vivisection, which are intended to place the practice on as humane a basis as possible The rules adopted are similar to those issued by Von Gossler, the Prussian Minister of Education and Medicine, and are founded on careful inquiry into the practice at the German Universities In thus regulating the practice of vivisection in the University, the trustees request the professors to see that the rules are strictly enforced, and will authorize the faculty to refuse the privileges of the laboratories to persons who violate the rules C W D

SPONTANEOUS RUPTURE OF HYDROCELE

Ed Journal of the American Medical Association

Dear Sir,—Tom K called upon me with quite a large bi-lateral hydrocele—equally as large as any that I had ever seen I removed the fluid from one side in the usual manner, afterward using the compound tinct of iodine which restored the condition of the sac to its normal calibre I had intended to operate upon the other during the following week, but Tom failed to come to my office until after the accident, which happened while at work in one of our theatres He says that he heard the gurgling splash, at the same time noticing an immediate collapse of the scrotal sac yet no flow of fluid externally visible He suffered from considerable soreness for several days subsequent to the rupture, and upon his reporting to me I found the condition of that scrotal sac undergoing the constitutional phenomena identically as if it had been punctured, and iodine had been injected into the sac

No inconvenience to the patient has ever developed since the spontaneous rupture, and he is at his former occupation (an engineer)

Very respectfully,
George N Monette, M D

New Orleans, May 14th, 1885

MISCELLANEOUS

The Michigan State Medical Society will hold its Twentieth Annual Meeting at Port Huron, commencing Wednesday, at 10 A M, June 10th, 1885 The members of the Society, and all other physicians in Michigan who can comply with the requirements of the Society, are cordially invited to attend this meeting and identify themselves with its interests

The Ohio State Medical Society will hold its Fortieth Annual Meeting at Dayton, June 3rd, 4th, and 5th, 1885 The meeting will be called to order on Wednesday, June 3rd, at 2 P M A good programme of work is promised, and a full attendance is expected

New York State Medical Association, Third District Branch, will hold its First Annual Meeting at Elmira, N Y, on Wednesday, June 10th, 1885 An interesting list of papers is on the programme, and the meeting will be one of importance

Professor P L Panum, of Copenhagen, who presided over the recent International Medical Congress in that city, died suddenly, May 2nd, 1885 An interesting biographical sketch of Professor Panum was given in this journal only a few months since, in which it was announced that he would visit this country in 1887 His death will be much regretted on both sides of the Atlantic He had attained the age of 64 years, and was highly esteemed by all who knew him

The Most Sensitive and Credible Tests for Albumen —At the close of an article on this subject, Dr Henry B Millard, of New York, draws the following conclusions That nitric acid shows 1 part of albumen in 100,000 Heat shows 1 part in 100,000, but rather more clearly than nitric acid, and in examinations of urine I often find it to show minute quantities of albumen where nitric acid does not Tanret's test and my own test will show 1 part in 300,000—the latter test the more clearly, this precipitates fewer of the alkaloids than Tanret's

Nitric acid and heat show almost exactly the same reaction and percentage with artificial albumen and albuminous urine Tanret's test and my own show the reaction better in the urine than in the artificial preparation I think, for practical purposes and ordinary clinical use, we may show with ease, by nitric acid, 1 part in 100,000, heat, 1 part in 100,000, Tanret's test, 1 part in 200,000, the phenic-acetic acid and potash test, 1 part in 200,000, heat showing it more clearly than nitric acid, consequently being more sensitive, and my own test showing it more clearly than Tanret's

Heat, although somewhat more sensitive than nitric acid, is often quite unreliable from the turbidity produced by it with mucin, and this particularly after acetic acid has been added

Finally, there are cases in which no single reagent is sufficient, and in which in order to determine the presence of albumen, the employment of several is indispensable —*Medical Record*, April 4, 1885

The Philadelphia Polyclinic —Dr B F Baer, president of the Obstetrical Society of Philadelphia, and late demonstrator of diseases of women in the University of Pennsylvania, has been elected professor of diseases of women in the Polyclinic Dr H Augustus Wilson has been elected professor of fractures and dislocations in the same institution

Rachitis and Rhacitis —After an examination of the etymology of the proper term for rickets, the New York *Medical Journal* concludes that the word should be spelled *rhachitis*, that the dropping of the "h" is only justified by laziness

Measles in Brooklyn —It is stated that there have been 1,700 cases of measles in Brooklyn since January 1, and that seventy deaths have occurred from it

A French Edition of Lusk's Midwifery —M Doleris has recently completed a French translation of this valuable work, and a copy of it has been presented to the Académie de Médicine on his behalf by M Charpentier

Dr Wm H Pancoast has announced his intention of resigning the position of professor of anatomy in the Jefferson Medical College

The Increase of Insanity and Inebriety —The *Quarterly Journal of Inebriety*, for April, 1885, gives the following statistical facts

"From the last census it appears that insanity increased one hundred per cent from 1870 to 1880 This was not the actual increase of insanity, but represented in part the more perfect registration of cases The whole number of insane in the United States was estimated at one hundred thousand, approximately, the actual number would be more if a perfect record of all the insane could be made For the treatment of these unfortunates the country has provided eighty different state asylums, and forty private asylums, with a capacity for forty thousand inmates In reality, fifty-three thousand insane are cared for in these asylums, leaving forty-seven thousand outside, uncared for, and without treatment

"There are approximately five hundred thousand inebriates in the United States, suicidal maniacs, unknown and unrecognized There are only twenty-one asylums and homes for their cure and treatment In these places less than four hundred cases are being cared for The state punishes by fine and imprisonment not less than sixty thousand of this number every year, with no other result than to precipitate them into more uncurable conditions The efforts of moralists of necessity fail, because founded on a wrong conception of the nature of inebriety The mortality of inebriates exceeds that of the insane, and has been estimated at from fifty to sixty thousand a year The average duration after inebriety has appeared is ten years The best and most accurate statistics of experts in the study and treatment of inebriates indicate that from thirty to fifty per cent are curable Inebriety is without doubt increasing Some authorities estimate this increase at fifty per cent, others less, but all agree that it is far beyond the ratio of increase of the population"

A New Method of Anæsthetizing —Under this title, M Columbel (*Lyon Méd*, No 41, 1884) recommends the injection of a Pravaz syringeful (1 to 1 5 grammes) of the following ℞ Atropiæ sulph, 0 02, morph hydrochlor, 0 20, aq destillat, 20 00 This to be given twenty to twenty-five minutes before the chloroform The atropia lowers the irritability of the pneumogastric, and prevents the inhibitory effect of the chloroform on the heart Eight hundred cases have been successfully anæsthetized by this method in Lyons —*The Medical Record*, April 4, 1885

[This so-called new method has been used by some American surgeons for fully three years—possibly five]

Quacks in Australia —The following, taken from the Australian *Medical Gazette*, would seem to indicate that the quack has reached the antipodes "As we think such superhuman genius should not pass unrecognized, we print the following advertisement from the *Hughenden Ensign*, Northern Queensland We fear, however, that we shall raise unworthy feelings of envy at the uninterrupted success of this, by his own account, unrivalled practitioner Dr A E Byrn, physician, surgeon, oculist, accoucheur, and apothecary, late of Victoria and Northern Queensland, is the only surgeon in all the Colonies who treated forty-seven cases of diphtheria without a single death, or performed all kinds of operations without one mishap during a continuous hospital practice of seventeen years Also surgeon for twelve years to five societies, numbering over 1,600 in families (see their stamped testimonials)"

The Sale of Compound Medicines in France. —The *National Druggist* states that several French courts of law have lately ruled that according to the French law no compound medicine may be sold, wholesale or retail, by any persons other than those holding diplomas The law says that such compounds "shall not be sold or offered for sale," and makes no distinction between wholesale or retail sale This decision may concern some firms having agencies in France

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Red Quinine —The *National Druggist* suggests that, in order to prevent the possibility of mistaking morphine for quinine, the latter drug be tinted red This plan has its merits It is obviously better than the plan now in vogue, which leaves the discovery to the man who buys the drug Painting quinine red is obviously cheaper than coroner's inquests —*Puck*

The National Park at Niagara —The bill providing for a free park at Niagara Falls has passed both houses of the New York Assembly

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OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U S ARMY, FROM MAY 16, 1885, TO MAY 22 1885

Lieut -Col Edward P Vollum, Surgeon granted leave of absence for three months, to take effect when his services can be spared by his department commander (S O 110, A G O, May 14, 1885)

Captain A A DeLoffre, Assistant Surgeon, relieved from duty at Ft Sessitor, D T, and ordered to Ft Totten, D T (S O 52, Dept Dak, May 14, 1885)

Captain Louis Brechemin, Assistant Surgeon, ordered for temporary duty at Ft Omaha, Neb (S O 44, Dept Platte, May 18, 1885)

First Lieut Benj Munday, Assistant Surgeon, relieved from duty at Ft Klamath, Oregon, and orded to Ft Walla Walla, W T (S O 72, Dept Col, May 12, 1885)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED MAY 23, 1885

Mead, F W, Passed Assistant Surgeon, detailed as member of board for physical examination of candidates for appointment as cadets in the Revenue Marine Service May 18, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY
Vol IV CHICAGO, JUNE 6, 1885 No 23

ORIGINAL ARTICLES

A UNIFORM NOMENCLATURE OF PHYSICAL SIGNS OCCURRING IN CONNECTION WITH THE RESPIRATORY SYSTEM[1]

BY AUSTIN FLINT, SR., M D
OF NEW YORK

At the meeting of the International Medical Congress in London, in 1881, I read a paper on "The Analytical study of Auscultation and Percussion " From that paper the following extracts are quoted with reference to their bearing on the purpose of this communication to the American Medical Association —

"Since the time of Laennec much has been added to our knowledge of auscultation and percussion It must be said, however, that the enlargement of their scope and the increase in precision of their application to diagnosis, have not been commensurate with the study given to them, and with the place which they have filled in medical literature A considerable share of the attention which they have received has been directed to the mechanism of physical signs, a highly interesting branch of inquiry, but not essential to their practical utility, and involving much liability to error The number of signs has by some authors been needlessly multiplied There have been over-refinements of description and of interpretation The nomenclature has been open to criticism Names have not been used by different writers with uniformity as regards signification The names applied to some signs have conveyed not merely imperfect but erroneous ideas Some writers have even designated signs by the names of authors who have described them Hence it is that the study of auscultation and percussion, and their practical employment in diagnosis, have seemed to involve peculiar difficulties, and to be necessarily restricted to a few practitioners " "As opposed to this view, I claim that by a simple method of study, which for the sake of distinction I have called analytical, the characters distinctive of physical signs are rendered clear, precise and readily appreciable, so that the practical advantages of auscultation and percussion may be made available in diagnosis with a moderate amount of time and attention on the part of the student and the practitioner "

"By the analytical method of study, I mean the analysis and comparison of physical signs in respect of the few obvious points of difference by which, practically, musical and other sounds are commonly discriminated The most important of these points of difference relate to the intensity, the pitch and the quality of sounds " "In the study of the signs furnished by auscultation and percussion, the differential points, in addition to those pertaining to intensity, pitch and quality, are few and easily appreciated They relate to apparent distance from, or nearness to, the ear, moisture or dryness, the rhythmical succession and the interruption of the continuity of sound " "It is to be assumed that the sole reliable basis of our knowledge of the significance of signs is experience Certain morbid signs denote particular morbid conditions because the former are found to be constantly associated with the latter The only solid foundation of the knowledge which underlies the practical application to diagnosis of auscultation and percussion, therefore, is in clinical and autopsical observations "

After the introduction which embraced the foregoing extracts, the paper was devoted to a consideration of the "Physical Signs furnished by Auscultation and Percussion as determined and differentiated by analytical study "

In the discussion to which this paper gave rise, the desirableness of an uniform nomenclature of the physical signs relating to the respiratory system was particularly dwelt upon, and as a result, a committee of five was appointed by Sir William Gull, the president of the medical section, to take this subject into consideration and report at the next meeting of the International Congress The authors of the paper, Drs Mahomed and Powell, of London, Professor Ewart, of Berlin, and Professor D'Espine, of Geneva, constituted the members of this committee

At a conference held directly after the appointment of this committee, it was resolved that the British members and the American member should propose lists of English terms, and that the member from Berlin and the member from Geneva should prepare lists, the former in the German, and the latter in the French language The several lists were to be sent to the chairman of the committee, the American member, to serve as the basis of a report to be made at the next meeting of the Congress

After the adjournment of the Congress in London, meetings of the committee were impracticable, but views were interchanged by means of correspondence The British members and the American member, prepared lists which were printed and submitted to members of the profession other than members of the committee After considerable criticism and various suggestions, the English terms were made very nearly uniform, as regards their number and words, together with the definitions and the significance of the terms respectively The lists were then transmitted to the member from Berlin and to the member from Geneva In return, lists were received in the German and in the French language

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[1] Read in the Section of Practice of Medicine Materia Medica and Physiology of the American Medical Association April 30 1885

The lists in the three languages approximated so closely to uniformity, that the members of the committee congratulated themselves on the progress made toward the end for which the committee was appointed A comparison of the several lists with reference to the points of agreement and variation, and a printed tabulation of the four lists, were submitted in a report by the chairman to the Medical Section at the meeting of the Congress at Copenhagen in 1884 In conformity with a suggestion contained in the report, the committee was continued, with power to increase the number of its members, and with the expectation of a second report to be made at the meeting of the Ninth International Congress

Since the meeting of the Congress at Copenhagen, the committee has met with a great loss—the death of Dr Mahomed Dr Mahomed felt deep interest in the work of the committee He was the only member present at Copenhagen, in addition to the chairman, and he entered warmly into the plan of enlarging the committee so as to embrace members representing other than the English, the German and the French languages, and of the endeavor to secure uniformity of nomenclature in all countries Professor Lépine, of Lyons, and Professor Trier, of Copenhagen, were added to the committee Other names were considered but not acted upon

As yet, since the meeting of the Congress at Copenhagen, there has been no consultation with the members of the committee This will take place without much further delay, and, in the meantime, it is desired that members of the profession in this country who feel an interest in the matter, will transmit to the chairman of the committee any suggestions bearing on the object for which the committee was appointed It is for this purpose that the matter is now brought formally to the notice of the American Medical Association

In connection with this communication a printed list of the terms, etc , prepared by the British members and by the American member of the committee, are submitted, with a request that suggestions may be communicated to the chairman of the committee

AUSTIN FLINT, *Chairman*

TABULATED LISTS

Of terms proposed by the British members and the American member of the Committee appointed at the meeting of the International Congress in 1881, to report on a uniform nomenclature of physical signs which occur in connection with the respiratory system

PALPATION

	BRITISH LIST *Dr Powell and Dr Mahomed*	AMERICAN LIST *Dr Austin Flint*
1	Vocal fremitus	Vocal fremitus
2	Rhonchal fremitus	Rhonchal fremitus
3	Fremitus	Friction fremitus

PERCUSSION

1	Tympanitic resonance	Tympanitic resonance
2	Amphoric resonance	Amphoric resonance
3	Diminished resonance Dulness	Diminished resonance Dulness
4	Absence of resonance Flatness	Absence of resonance Flatness
5	Increased resonance	Increased or vesiculo tympanitic resonance
6	[1]Bell sound	(Not included)

AUSCULTATION

First Group Varieties of Breath Sounds

1	Exaggerated Syn Puerile Compensatory Supplementary	Exaggerated, etc
2	Diminished Syn Feeble Weakened vesicular murmur	Diminished, etc
3	Suppressed Syn Absence of breath sound	Suppressed, etc
4	Prolonged expiration General or local	Prolonged expiration, High or low in pitch
5	Interrupted respiration Syn Jerking, wavy, cog wheel'd	Interrupted inspiration, etc
6	Tubular Syn Bronchial High pitched blowing	Tubular Bronchial
7	Vesiculo tubular Syn Broncho vesicular Harsh, coarse, sub tubular	Broncho vesicular Syn Vesiculo tubular
8	Amphoric	Amphoric
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Second Group Adventitious Sounds

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2	Stridor	Stridor
3	Rales Syn Bubbling râles, etc (*a*) Medium, (*b*) Large High or low in pitch	Moist or bubbling rales (*a*) Medium, (*b*) Large, (*c*) Small High or low in pitch
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5	Clicking	Clicking
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7	Metallic tinkling	Metallic tinkling
8	Splash	Splash
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4	Pectoriloquy	Pectoriloquy
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PRIMARY MALIGNANT DISEASE OF THE KIDNEYS[*]

BY GEORGE MINGES, M D ,

OF DUBUQUE, IOWA

Malignant disease of the kidney is one of the rarer affections with which the physician has to deal, and was little known prior to 1830 Having seen no less than four cases in a practice of five years, two my own, one occurring in the practice of Dr G M Staples, of Dubuque, and one in that of Dr Benjamin McCluer, of the same city (both of whom I take this opportunity of thanking for their kind permission to publish their cases, as well as Dr O J Fullerton, of Waterloo, and Dr P J Fullerton, of Raymond, for the promptness with which they sent me the notes of the autopsy with specimens of one of my cases after it passed out of my observation), I have prepared this paper for this Association In the time at my disposal I have succeeded in collecting the more or less complete histories of sixty cases, which, added to those collected by earlier observers, give me quite a respectable number from which to draw conclusions I am very much indebted to the classic works of Roberts[1] and Ebstein[2] for information on the subject The articles by Rohrer[3] and Seibert[4] I have not been able to obtain

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[*] Read at the meeting of the Cedar Valley Medical Association January 6, 1885

Cystic degeneration of the kidney, according to Ebstein, is rare I have found reports of quite a number of cases of this disease, some fatal, others operated upon These I have not included in my table, although I suspect that a good proportion of *them* were cases of cysto sarcoma

Etiology —Malignant renal disease may occur secondarily, generally affecting both sides, and is propagated either by the circulation, or by extension from similarly diseased neighboring structures, but as these secondary tumors are generally so small as rarely to become the subject of clinical observation, their consideration is here omitted Heredity is rarely noticed as a cause of primary malignant disease of the kidney In only two of my collection of sixty cases is it definitely stated that cancer occurred in other members of the family, once in a granddaughter[5] and once in a sister[6] In one other case another child in the same family is said to have died of induration of the mesenteric glands, which may have been cancerous Ebstein's assertion that cancer of the kidney does not occur congenitally is probably a mistake, later researches show that malignant disease occurs during early life much more frequently than has hitherto been supposed Thus, Otto Soltmann[8] has found that of ten cases of tumor of the vagina in children, six occurred between the ages of 2½ and 3 years, the other four earlier, making it probable that some of these at least were congenital His case, and those of Sanger and Ahlfeldt, were sarcomata Duzan, in 1876, collected statistics of 182 cases of cancer occurring in childhood, and out of 100 cases Henoch found 52 occurring before the fourth year Wiederhofer claims to have seen several cases of congenital cancer, and H E Clarke[9] reports a case of round-celled sarcoma of the spleen noticed at birth, and proving fatal in one year A case of sarcoma of the uterus in a child of 3 years has also been reported[10] Jacobi has been credited with having been the first one to draw attention to congenital sarcoma of the kidney,[11] but in some of Jacobi's cases it may be doubted whether the disease actually existed at birth In one case, however, there can be no doubt, as the child was born dead, secondary deposits were found in the liver, and the enlargement of the abdomen caused dystocia The mother had become impregnated just after recovering from a severe attack of typhoid fever and colitis, and while she was growing very stout, and to this fact Jacobi credits the causation of the sarcoma in the fœtus

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Frequency —Of malignant disease in general, that of the kidney forms but a small proportion Out of 8,300 cancers Fanchon found only three affecting the kidney, on the other hand, d'Espine[3] found two cases in 889, or 0 3 per cent, seated in that organ, and Virchow[4] has arrived at similar conclusions, finding that 0 5 per cent of all fatal malignant tumors in Wurzburg were of the kidney In Frerichs' clinic only three cases occurred in ten years

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36	11	1	11	15	8	20	9

It will be seen that between 40 and 50 per cent of all cases occur during the first decennium, and that the *sixth* decennium comes next in point of frequency This does not exactly tally with Hennig's observation that only 24 cases of cancer occur in 1,000,000 living children Ebstein finds in adults 2½ times more cases of renal cancer in males than in females, while in children the sex does not make much difference Of 46 cases of my table where

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See Case 25 of table

[6] Case 60 of table

Case 13 of table

[8] Jahrbuch f Kinderheilkunde Bd XVI H 3 and 4

[9] British Medical Journal for 1883 p 1157

[10] T C Smith in Amer Jour of Obstet Vol XVI p 555

[11] Seibert loc cit

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[1] Case 48 of table

[2,3,4] Ebstein op cit

members of the profession other than members of the committee After considerable criticism and various suggestions, the English terms were made very nearly uniform, as regards their number and words, together with the definitions and the significance of the terms respectively The lists were then transmitted to the member from Berlin and to the member from Geneva In return, lists were received in the German and in the French language

The lists in the three languages approximated so closely to uniformity, that the members of the committee congratulated themselves on the progress made toward the end for which the committee was appointed A comparison of the several lists with reference to the points of agreement and variation, and a printed tabulation of the four lists, were submitted in a report by the chairman to the Medical Section at the meeting of the Congress at Copenhagen in 1884 In conformity with a suggestion contained in the report, the committee was continued, with power to increase the number of its members, and with the expectation of a second report to be made at the meeting of the Ninth International Congress

Since the meeting of the Congress at Copenhagen, the committee has met with a great loss—the death of Dr Mahomed Dr Mahomed felt deep interest in the work of the committee He was the only member present at Copenhagen, in addition to the chairman, and he entered warmly into the plan of enlarging the committee so as to embrace members representing other than the English, the German and the French languages, and of the endeavor to secure uniformity of nomenclature in all countries Professor Lépine, of Lyons, and Professor Trier, of Copenhagen, were added to the committee Other names were considered but not acted upon

As yet, since the meeting of the Congress at Copenhagen, there has been no consultation with the members of the committee This will take place without much further delay, and, in the meantime, it is desired that members of the profession in this country who feel an interest in the matter, will transmit to the chairman of the committee any suggestions bearing on the object for which the committee was appointed It is for this purpose that the matter is now brought formally to the notice of the American Medical Association

In connection with this communication a printed list of the terms, etc, prepared by the British members and by the American member of the committee, are submitted, with a request that suggestions may be communicated to the chairman of the committee

Austin Flint, *Chairman*

TABULATED LISTS

Of terms proposed by the British members and the American member of the Committee appointed at the meeting of the International Congress in 1881, to report on a uniform nomenclature of physical signs which occur in connection with the respiratory system

PALPATION

	BRITISH LIST *Dr Powell and Dr Mahomed*	AMERICAN LIST *Dr Austin Flint*
1	Vocal fremitus	Vocal fremitus
2	Rhonchal fremitus	Rhonchal fremitus
3	Fremitus	Friction fremitus

PERCUSSION

1	Tympanitic resonance	Tympanitic resonance
2	Amphoric resonance	Amphoric resonance
3	Diminished resonance Dulness	Diminished resonance Dulness
4	Absence of resonance Flatness	Absence of resonance Flatness
5	Increased resonance	Increased or vesiculo tympanitic resonance
6	[1]*Bell sound*	(*Not included*)

AUSCULTATION

First Group Varieties of Breath Sounds

1	Exaggerated Syn Puerile Compensatory Supplementary	Exaggerated, etc
2	Diminished Syn Feeble Weakened vesicular murmur	Diminished, etc
3	Suppressed Syn Absence of breath sound	Suppressed, etc
4	*Prolonged* expiration General or local	*Prolonged* expiration High or low in pitch
5	Interrupted respiration Syn Jerking, wavy, cog wheel'd	Interrupted inspiration, etc
6	Tubular Syn Bronchial High pitched blowing	Tubular Bronchial
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[8] Jahrbuch f Kinderheilkunde Bd XVI H 3 and 4

British Medical Journal for 1883 p 1157

[10] T C Smith in Amer Jour of Obstet Vol XVI p 533

[11] Seibert loc cit

[1] Case 48 of table

[2,3,4] Ebstein op cit

sex is mentioned, I find 24 males and 22 females, or of 29 adults, 17 males and 12 females, of 17 children, 7 males and 10 females

Pathology — Side affected — Almost all authors state that the right kidney is affected much more frequently than the left (Ebstein, Walshe, and the older editions of Roberts) In his latest edition, I believe, Roberts, in a collection of 63 cases, finds both kidneys affected primarily at the same time in only three cases, the other 60 being equally divided between the two sides Klebs alone gives the preponderance to the left kidney In my own table the left kidney is seen to be affected twice as often as the right, namely 30 times out of 47 cases By adding to Ebstein's cases all those of mine occurring after his time, and those of Homans' table not included in mine, we get a total of 85 cases, with 43 for the right kidney and 42 for the left

Size — The affected kidney is almost always enlarged, and generally greatly, although Roberts mentions one case in which it was smaller than normal According to Ebstein, the largest tumors, not only relatively but absolutely, occur in children, sometimes acquiring an enormous size The largest I have been able to find recorded were Roberts'[1] occurring in a child of 6 years and weighing 31 lbs, and v d Byl's in a child of 8, weighing 15 5 K In Van Denburg's[3] case a child of 7 years had a tumor weighing 25 lbs But large tumors occur even at still earlier ages Hilton Fagge[4] saw one in an infant of 4½ months weighing 4½ lbs, and Mott[5] one in an infant of 11 months weighing 5½ lbs In J C Wilson's case[6] a tumor of 20 lbs occurred in a child of 2½ years In Paul's case[7], in a child of 4 years, the tumor weighed six lbs, the whole body weighing only ten Roberts gives the average weight of the tumor in ten children at 8¾ lbs, in ten adults at 9¾ lbs By adding my cases to his, omitting his own of 31 lbs and Langstaff's which occurred before 1866, I find the average in nineteen adults to be 6¾ lbs, in twenty six children 8½ lbs The average weight is increased by the weight of small tumors being omitted, but on the other hand several were extirpated before their full size had been reached

Varieties — Of 63 cases in which the nature of the tumor is mentioned, I find 30 sarcomata, 30 carcinomata, 1 fibro cystic tumor, 1 adenoma, and one solid tumor Of the 30 carcinomata, 21 were described as medullary or encephaloid, 1 as papilloma, and 8 simply as cancer or carcinoma Of the 30 sarcomata, 18 are not more definitely described, 2 are described as myxo-sarcoma, 1 as adeno sarcoma, 2 as angio sarcoma, 1 as cysto-sarcoma, 4 as round-celled with many giant-cells, and 1 as spindle-celled This shows that cancer and sarcoma occur with about equal frequency, although Ebstein seems to doubt whether primary sarcoma of the kidney ever occurs Jacobi claims to have seen fourteen or fifteen cases of sarcoma of the kidney, some of them congenital, but I have not been able to determine how many of them were primary The exact nature of many reported cases, however, remains doubtful, no microscopic examination having been made Of carcinomata, by far the most frequent variety is the medullary, although the following also have been observed epithelioma by Robin and Michell Clarke,[1] scirrhus by Wilson, Walshe, Cruveilhier and Lebert, primary villous carcinoma with cylinder cells by Cattani, two cases of striated myo sarcoma by Osler,[3] a primary cylindroma with secondary deposits in liver having the same structure,[4] and a mixture of cylindroma, sarcoma and adenoma[5] Ebstein also mentions sarcoma carcinomatodes, and Gluge and Rokitansky colloid carcinoma One of the tumors removed by Billroth was a papilloma[6] Bright, Lebert and Rokitansky also claim to have seen cases of cancer melanodes Adenoma, described by Weichselbaum and Greenich, does not interest us much here, as it rarely reaches the size of an egg It occurs in 20 per cent of the cases in both kidneys I have only been able to find one case reported The tumor occurred in an infant of 11 months, attained the size of a head, and was extirpated by Czerny[7] Klebs claims to have seen cases in which the transition from adenoma to carcinoma could be traced[9]

Consistency — From the consistency of the tumor we cannot form any definite conclusion as to its histological composition, for while I find 6 sarcomas and 3 carcinomas noted as firm, 3 sarcomas are described as containing brain like matter (Paul's[10] and Alloway's[11]) and in the latter its sarcomatous nature was determined by the microscope The tumor is likely to be hard in the beginning, afterward undergoing rapid softening in spots, which may cause a suspicion of abscess On aspirating such a tumor we are likely to be left in the dark as to its nature, as frequently only degenerated cells and granular detritus are obtained *A priori*, we would expect to find sarcoma more frequently in childhood, as it consists of embryonal tissue, and statistics to a certain extent bear this out In 29 children carcinoma was found 12 times, sarcoma 17 times, while of 31 adults, 17 were affected with carcinoma, and 14 with sarcoma The different varieties of sarcoma mentioned in the beginning of this chapter are the same as those occurring in other parts of the body

Point of Origin — According to Roberts, cancer of the kidney always begins in the cortex Formerly its origin was supposed to be in the connective tissue, but Pereverseff has demonstrated its development from the epithelium of the uriniferous tubules, corroborating Waldeyer's theory In his case could be seen tubules normal in one part of their course, and in another showing proliferation of their natural lining

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[1] Case 8 of table
[2] Gerhardt's Lehrbuch der Kinderkrankheiten Tubingen, 1871
[3] Case 30 of table
[4] Flint, Practice of Medicine
[5] Ibid
[6] Case 13 of table
[7] Case 49 of table

[1] London Lancet August 18 1860
[2] Gazetta degli Ospit 1880 vol I p 435
[3] Journal Anat and Phys 1879-80 Vol XIV pp 229-233
[4] E Wagner
[5] Ebstein op cit
[6] Case 53 of table
[7] Mediz Jahrb 1883 Heft II
[8] Case 27 of table
[9] Ebstein op cit
[10] Case 49 of table
[11] Case 37 of table
[12] *Centralb f d medic Wissensch*

epithelium Where the disease was farther advanced, the proliferated epithelium with multiplied nuclei blocked up the tubes, distending the tunica propria, and soon the latter was bulged out by the pressure, and coalescence took place with neighboring tubules the cells at the same time also becoming more varied in form At first the scanty stroma was found to be formed by the membrana propria, in more degenerated portions it was more abundant, and partook of a cicatricial character Here were also seen some spindle-cells, but nowhere a development of connective tissue into cancer cells Something similar can be seen in the slide which I have prepared from the Kemp case Here, on passing from the sound into the diseased kidney-structure, we can see the uriniferous tubules becoming more irregular and coalescing, until finally nothing remains but a mass of densely crowded cells with scanty connective-tissue stroma in which only now and then a faint trace of a segment of the outline of a tubule can be recognized The variety of cancer depends on the proportion of cells to connective tissue, the former preponderating in medullary carcinoma, the latter in scirrhus In encephaloid the stroma is sometimes formed mainly by very thin-walled vessels whose rupture causes hæmorrhage into the tumor and produces hæmaturia According to Ebstein, the connective tissue in scirrhus may contract, causing obsolescence of tubules, and then we find a connective tissue poor in cells, containing obsolete tubules, or there may be a proliferation of small cells in the stroma The Malpighian capsules may become dilated and undergo cystic degeneration, but Braidwood alone speaks of their cancerous degeneration

Extension —The cancerous mass is liable to extend into the pelvis of the kidney, and often plugs the ureter, in one case extending to within two or three inches of the bladder[1] According to Roberts, the ureter is occluded in the majority of cases, either by cancerous material, by an organized clot,[3] or by pressure from the tumor In several cases the ureter was dilated

In 12 cases I find the other kidney mentioned as being hypertrophied, and in one of these it also contained a small cyst In one case it was granular in one it contained pulpy tubera, and in two it contained secondary nodules In the 11 remaining cases in which the condition of the other kidney is mentioned, it was healthy I think that hypertrophy of the non-cancerous kidney has been overlooked in many cases, it was found in all those that came under my observation The non cancerous portions of the affected kidney may sometimes be the seat of amyloid degeneration

Ebstein says that the renal vein escapes in but few cases, but is generally compressed by the tumor, later on its walls are corroded, and thence the cancerous matter may grow upward into the vena cava, or even into the vena azygos, as in a case described by Gintrac The blood current frequently carries particles to the lungs or liver, which accounts for the frequency of secondary deposits in those organs In my table the liver was mentioned ten times as being secondarily affected, the retro-peritoneal glands only six times The lungs were mentioned five times as being the seat of secondary tumors, but no doubt the thorax in many cases remained unexamined

Secondary deposits, according to Ebstein, occur in more than one-half the cases In my 60 cases, their presence is mentioned in only 20, but this does not prove that they were absent in all the others The supra-renal capsule is rarely affected secondarily, and the same is true of the heart Todd mentions a case in which secondary nodules occurred in the pleura and mediastinum The disease may involve neighboring organs by contiguity, especially the lymphatic glands, when a doubt may arise as to the primary seat of the neoplasm In such cases Waldeyer would always see the origin in the kidney, believing that cancer can only originate in the epithelial cells Zenker and Schroder,[1] on the other hand, claim to have seen cases of paranephritic cancer which began near the hilum and immediately perforated the capsule to invade the kidney secondarily, and Schroder believes these to be caused by a proliferation of the endothelia of the vessels In the medical journals of the past few years I have met with several cases cases of retro renal sarcoma, among others those operated on by Billroth[2] and Chadwick,[3] and also with a case of cancer of the lumbar glands adherent to the kidney[4] The vertebræ are eroded in rare cases,[5] and the same is true of the ribs[6] The bladder, prostate gland, and testicle are very rarely affected secondarily from cancer of the kidney, although the reverse is quite a common occurrence

Adhesions —Malignant disease of the kidney usually forms adhesions with neighboring organs early in its course, often with the lumbar glands, with the colon lying in front, or with the small intestine, sometimes with the liver, or diaphragm, spleen, omentum, pancreas, anterior parietes, meso colon, etc

Perforation sometimes occurs into the peritoneal cavity or the duodenum Abele describes a case in which there was perforation of the abdominal wall, allowing prolapse of a portion of the intestines, which afterward sloughed, causing a fæcal fistula[8] The other abdominal viscera are usually more or less displaced Roberts says the colon invariably lies in front, but in Whitehead's[9] and Gross'[10] cases it was distinctly stated that there was no colon in front In one case[11] the whole intestinal canal below the stomach lay in front of the tumor Compression of the duodenum may cause dilatation of the stomach, as in one case of Niemeyer's On the other hand, the stomach has been known to be so atrophied by compression as to resemble a small diverticulum of the œsophagus[12] Malignant disease of the left kidney generally pushes the spleen high up, that of the right side displaces the liver toward the left, or when growing from the upper part, it may cause rotation of that organ on its transverse axis, as in a case described by Doederlein. In one of Roberts' cases a movable spleen was displaced into the iliac fossa. Large tumors may cause great elevation of the diaphragm and compression of the lungs, with dislocation of the heart. There may be œdema of the lower extremities, and ascites, from involvement of the descending vena cava.

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[1] Case 3 of table

Roberts op cit

[3] Case 11 of table

[1] Ebstein op cit

[2] Wien med Wochensch

[3] Boston Med and Surg Journ October 23 1884

[4] Pepper in Phil Med Times Vol V, p 429

[5] Case 10 of table

[6] Case 46 of table

Rayer

[8] Ebstein op cit

[9] Case 35 of table

[10] Case 43 of table

[11] Case 13 of table

[12] Case 30 of table

Symptomatology.—Cancer of the kidney may exist for some time without causing any very important symptoms, as in the following case, which was reported orally by Dr. G. M. Staples at the meeting of the Dubuque Medical Society, June 8, 1880.

Case I.—Oscar F., æt. 3 years. Five months ago, when mother first noticed the tumor in the left side, it already extended from the free border of the ribs almost to crest of ileum, and almost to median line. It was quite tense and elastic. On account of the malarial district in which the child lived, and as it had had several chills, enlarged spleen was diagnosticated. At one visit, when the author saw the case with Dr. Staples, they both thought they detected an obscurely resonant strip of percussion crossing the tumor in front, and this fact, together with the fluctuation of rounded tense tumor made it probable that the case was one of hydronephrosis, but at no subsequent visit could the colon again be traced in front of the swelling. The aspirator needle withdrew but a few drops of blood. Appetite remained fair and emaciation only became great shortly before death. Urine normal. Pain and cachexia were absent until the last few weeks of life.

The autopsy, 28 hours after death, showed extreme emaciation and a markedly senile appearance. Abdomen 72 cm. in circumference. Free border of ribs pressed outward by a tumor extending downward to anterior superior spine of ileum, and having a second lobe extending far to the right of the median line. Integument over tumor covered with large veins. Abdominal parietes excessively thin and almost devoid of fat. Left lobe of tumor spherical, tense, and adherent to descending colon, which passed over it in front. It could be peeled out in front and at the sides, but behind the fingers penetrated the tumor behind and a substance resembling brain matter escaped. Whole intestinal canal very much compressed. The tumor was estimated to weigh about 12 lbs., and occupied the place of the left kidney, whose tunic formed its sac. Ureter completely occluded by what appeared to be an organized clot. Right kidney, besides a certain amount of hypertrophy, showed nothing peculiar. Both surfaces of liver covered by whitish hemispherical cancer nodules about ½ inch in diameter. Microscopical examination of the juice showed epithelial cells of varying shapes.

Roberts says: "*The distinctive symptoms of cancer of the kidney are tumor in the abdomen and hæmaturia.* In every case in which it was the determining cause of death, either one or both were present." To this rule there are few exceptions, but in a case described by Hirtz, the only symptoms were uncontrollable diarrhœa, marasmus, and œdema of the legs.

Tumor.—By far the most constant, and generally the first symptom, is tumor. All authors, so far as I am aware, agree on this. Adding the 52 cases collected by Roberts, in 1866, to the 51 of my table which have occurred since that time, I find this symptom absent only three times in 103 cases. In one other case it was not noticed, because the abdomen was not examined during life, but as the belly was large and the tumor had the size of a fœtal head, it could not have escaped a thorough investigation. In one case the tumor was only noticeable occasionally toward the end of life.[1] In *all* cases occurring in children, both in Roberts' and my own collection, the tumor was large, generally enormous. (For examples of such enormous tumors see under head of *Pathology*.) In one case it projected beyond the child's knees when sitting.[2] In such cases the parietes are often crossed by dilated and tortuous veins. The tumor is generally first noticed in the flank between the border of the ribs and the ilium, pushing the intestines before it. Dullness on percussion is not obtained until the tumor has become large to reach the parietes.

The relation of the intestines to the tumor is of great importance in making the diagnosis, as it forms the criterion in diagnosticating retro-peritoneal tumors. If the neoplasm be situated in the right kidney, the cœcum generally lies to its outer side, the ascending colon crosses in front of the tumor obliquely from right to left, and the small intestine lies to the inner side. When the left kidney is affected, the descending colon and a portion of small intestine lie in front. Roberts goes so far as to say that the colon invariably lies in front, but to this also there are some exceptions, as see cases 35 and 43 of table. The colon can be recognized by percussion in most cases until it has become compressed by the large size of the growth, when in a few cases it may still be felt as a firm cord crossing the tumor, or its course may be demonstrated by injecting air (Spencer Wells) or water (Czerny) per rectum. In one case observed by me, brisk pressure over the seat of the colon gave rise to a gurgling sound audible at some distance.

On account of the resistance offered by the lumbar muscles, the growth of the tumor is generally much greater toward the front of the abdomen, and thus it may happen that even in case of large tumors the area of dullness in the loin may not be increased on the side of disease, as was pointed out long ago by Bright. On the other hand, in one of my own cases, in which the tumor did not attain a large size, it could only be detected posteriorly. By deep palpation the neoplasm is felt as a smooth tumor with rounded margins, often presenting nodules of varying consistency, quite hard spots alternating with others presenting a very deceptive sense of fluctuation, or the whole tumor may resemble a large sac filled with fluid. The fixed position of the tumor is generally dwelt upon as a very important characteristic, but the exceptions are quite numerous. Thus in the older literature cases of cancer of floating kidney are mentioned by Rollet, Trousseau, Bardeleben, and in the *Lancet* of May 18, 1865. Kocher has removed a sarcomatous, Lossen an angio sarcomatous, and A. E. Barker an encephaloid, floating kidney. In my table of 60 cases I find 17, or 27 per cent., described as more or less movable, 7 "slightly" or "somewhat," 5 "very" or "freely," and 1 "perfectly." The last concerned Prof. Byford's case, in which the tumor seemed to have no connections whatever on palpation, and on operation was found attached by two long, broad bands of peritoneum. It is therefore well not to attach too much importance to the fixity or mobility of the tumor in making a diagnosis As a general rule, it may also be stated that the tumor does not descend with the diaphragm during inspiration, the only exception in my table being Alloway's[1] and Homans' cases, although in others examination with reference to this point may have been omitted In rare instances the tumor is seen to pulsate, and in these cases auscultation may reveal a systolic bruit, as in the following cases one described by Ballard,[3] in which Bright diagnosticated aneurism of the renal artery, one by Bristow,[4] and one by Holmes, or either symptom may be present alone There was bruit alone in Alloway's case, and pulsation alone in one of Langstaff's An important symptom mentioned by Bright, to show the connection of the tumor with the kidney, is omitted by many authors, *i e*, the motion communicated to one hand lying on the tumor, when the other hand tilts the kidney forward by deep pressure in the loin

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[1] Case 33 of table.

[2] Case 13 of table.

Hæmaturia —The next symptom in point of importance and frequency is hæmaturia Roberts found it present in 24 of 49 cases Adding out of my list 57 cases where mention is made of its presence or absence, we find that in 106 it was present 48 times or about 45 per cent According to Seibert, it is the first symptom in two thirds of the cases occurring in children Hæmaturia is especially apt to be the first symptom when the disease is due to trauma, or mechanical or chemical irritation Brinton[6] describes a case where hæmaturia after receipt of an injury was the *only* symptom of renal cancer It may occur at various times in the course of the disease In nine cases I find it mentioned as the first symptom, in two as occurring only early in the disease, in one it did not appear until shortly before death, and in another it first appeared early, but did not recur until just before death In one case it was almost constant during the last fifty days of life Twice it was said to occur from time to time, and once to be intermittent In one case it came on generally after exercise, giving rise to the diagnosis of renal calculus In one of my own cases it came on generally after drinking beer As to the quantity of blood passed at a time, this varies greatly, and may vary at different times in the same case It is rarely so small that it cannot be recognized as blood microscopically

In 11 cases in which the quantity was noted, it was said to be profuse in 7, slight or only tinging the urine in 4 When but little blood is effused, it is intimately mingled with the urine, giving it a blood red color, and on standing the blood discs settle to the bottom When the sediment contains blood casts of the tubules, the hemorrhage, must be from the kidney When the hemorrhage, however, is profuse, the blood may form one gelatinous bright-red clot at the bottom of the vessel, or coagulation may take place in the bladder, causing retention or even coma[9] When the blood coagulates on its way down the ureter, the clots have the pathognomonic shape of rain-worms, leaving no room for doubt as to the route they have taken (two cases), and in rare cases give rise to symptoms of renal colic, although, as a rule, the occurrence of pain at the time the blood enters the bladder points rather to the passage of a renal calculus down the ureter More frequently pain and tenesmus occur on attempting to urinate, the urethra becoming blocked by the coagula In one of my cases this was so distressing as to necessitate the operation of cystotomy

The urine, as a rule, shows but little alteration from the normal During the attacks of hæmaturia it of course contains albumen and fibrin and shows blood-discs under the microscope Of 36 cases where the character of the urine is mentioned, it seems to have been normal between the attacks of hæmaturia in 20 Crystals of uric acid or oxalate of lime were noticed in 3 cases, and triple-phosphates in 1 More or less albumen was present in 7, but in only 2 was the quantity considerable Pus-globules were observed in 4 cases Tube-casts were found in 5 cases, and in one of these they were composed of blood-corpuscles. In one case the urine was said to have been milky in the beginning of the disease Contrary to expectation, uræmic symptoms do not frequently occur in malignant renal disease, only 5 times in my collection of 60 cases, although the urine was scanty in one other Frequent micturition was a symptom in ten cases All this is of little value in making a diagnosis, and hence much attention has been paid to examination of the urine for cancer-cells In three cases of my table, epithelial deposits occurred, and in a case of sarcoma large round cells were found, with large nuclei almost filling them, but all these cellular formations were probably from the normal urinary tract In Jerzykowsky's case colloid masses were sometimes expelled, but were not closely examined Ebstein is probably correct when he says "The occurrence of cells of any particular kind (in the urine) is of no value whatever in the diagnosis of cancer of the kidney, only the finding of cancer particles with alveolar structure can be looked upon as a symptom of importance" These alveolar particles must be very rarely found, for although the encephaloid matter may project into the ureter, as in Jerzykowsky's case, or extend even to within a few inches of the bladder, as in a case described by Bence Jones, yet the matter is generally so degenerated that nothing characteristic can be found Heller claims to have found flocculi of cancer coated with uric acid crystals in several cases

Pain is a very inconstant symptom in malignant disease of the kidney In 38 cases I find it absent 8 times In 8 cases it was remarked to be the first symptom In the following case the pain disappeared with the appearance of the tumor

Case II —Anna Tipaldy, of Center Grove, Dubuque Co, Iowa, at 8 years, fairly well developed, came under Dr Benj McCluer's treatment on July 19, 1884 Has always been healthy until last fall, when she began to complain of weariness and loss of appetite, and began to stand and walk like a hunch back, without discoverable cause For a while there was temporary improvement, but she again became worse There were attacks of slight fever toward evening Soon she began to complain of headache and great pain in the left side, obliging her to keep in bed and causing suspicion of a fractured rib. In the beginning of spring the pain began to subside, and now there is none whatever, except on defecation. She is very much constipated, and requires large doses of cathartics daily. Two months ago first noticed a tumor in the left side which has grown rapidly ever since. No hæmaturia has ever occurred. On inspection, patient slightly anæmic, with senile expression of countenance, no cachexia, clear skin with somewhat enlarged veins, respirations slightly accelerated. In left hypochondriac region an oval, solid, immovable, smooth tumor of the size of two fists, extending from eighth rib downward, forward, and toward right side, pushing the intestines to the left iliac region. The eighth, ninth and tenth ribs pushed outward. No line of resonance between tumor and spleen. Circumference at level of nipple 22 inches, xyphoid cartilage 24, umbilicus 25¾, crest of ilium 22½. Tumor seems to come to surface from depth, and is somewhat notched near the umbilicus. Veins over tumor beginning to enlarge. Transverse colon can be traced to about the splenic flexure, where it is lost. Exploring needle not used. Diagnosis "cancer of the kidney." Dr McCluer was succeeded by a homœopath who aspirated about ten ounces of a straw colored fluid followed by blood, a few days before death.

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[1] Case 37 of table

[2] Case 50 of table

[3] Transactions Path Soc for 1859

[4] Med Times and Gaz 1854 Vol II p 359

[5] Brit Med Jour 1873 Vol I p 657

[6] Case 37 of table

[7] Case 1 of table

[8] Int Med Jour for 1857

[9] Case 44 of table

Autopsy, August 12, 1884, 27 hours after death. Body very emaciated. Face pale and very senile, hands yellow. Measurements xyphoid cartilage 26 inches, umbilicus 27½ inches. No œdema. No adipose tissue. Descending colon in front of tumor. Tumor, size of adult head, adherent posteriorly, rounded, with a nodule projecting beyond median line. Ribs pressed outward by tumor. During removal the tumor ruptured at point of aspiration and posteriorly, evacuating soft brain like mass mixed with blood clots. Most of kidney remaining, although much compressed, separated from neoplasm by a dense membrane. Ureter normal. Stomach pressed upward. Spleen, liver, and mesenteric glands normal. Right kidney hypertrophied to almost twice the normal size, containing a small cyst of diameter of a penny, extending from capsule through cortex to medullary portion. Bladder, thoracic and cranial cavities not examined.

The most frequent seat of the pain is the loin, whence it may radiate to the ribs, shoulders, groin, or down the thigh, simulating sciatica, or to the bladder, imitating renal colic. Retraction of the testicle is rarely present, although the passage of a clot down the ureter may give rise to symptoms of renal colic. The next most frequent seat of pain is the abdomen. In one case of my table a calculus was passed which seemed to explain the pain.[1] In another case it radiated from the liver to the scapula. In one case each the pain is marked "hardly any," "dull," "constant," "agonizing," "intolerable," "causing lameness," "on stumbling," "belly ache," and "great." Twice it increased with the growth of the tumor, once it did not come on until two weeks before death, and four times it was paroxysmal.

Gastric Symptoms.—*A priori*, we should expect constipation, from compression of the colon, to be a very common symptom, and it is mentioned by most authors as of very frequent occurrence. In my collection it is mentioned only three times, alternating diarrhœa and constipation in 2 cases, diarrhœa in 6, one of mucus and blood, bowels regular in 6. Appetite is said to be fair in 5 cases, variable in 3, voracious in 3. Roberts also mentions 3 cases of voracious appetite. Dyspeptic symptoms are noted in 3 cases, and vomiting was present more or less in 9, in one of these stercoraceous.[3] In two cases poor appetite was said to be the first symptom, but in one it improved again. One case[4] had great craving for sulphur, and another aversion to farinaceous food,[1] explained by absence of pancreas. Ebstein speaks of icterus caused by compression of the common bile duct.

General Symptoms.—Emaciation usually progresses very rapidly in children. In adults, years may elapse before the constitution becomes affected to any appreciable extent. According to St Germain, the cancerous cachexia is not observed in children. A waxy appearance from loss of blood may occur, and in the children I have observed a look of premature senility was very well marked. Yet these children often do not appear as much affected as one would suppose, but play about until the size of the tumor, and the rapidly waning strength confine them to bed, or the rapid encroachment on the thoracic organs causes agonizing dyspnœa only imperfectly overcome by using all the accessory muscles of respiration. One child of three years and nine months with a tumor weighing 13½ lbs., was confined to bed only two days just before death.[2] Ascites and œdema of the legs, probably due to compression of the vena cava descendens, was present in 6 cases in my table, anasarca with œdema of face in 2, enlargement of abdominal veins in 9.

Jacobi claims that late impairment of the general constitution and temporary improvement render it probable that the tumor is a sarcoma, rather than a carcinoma, and in several of his cases of sarcoma the constitution was impaired late or not at all. I find temporary improvement noted as occurring in two sarcomas and in three carcinomas. In one of Langstaff's cases[3] of cancer, the improvement between the exacerbations was wonderful, and in Skene's[4] case it was so great that medical attendance was discontinued for awhile. In one case there was intense neuralgia of the face and back of the head. In rare cases erosion of vertebræ causes paraplegia, as in a case described by Cornil,[5] and in one case of my table,[6] there were attacks resembling hystero epilepsy. In 9 cases fever was stated to have been present, in one hectic, in one with rigors, and in one followed by copious perspirations.

Diagnosis.—In the late stages of the disease when all the symptoms are present, the diagnosis is comparatively easy. V. Niemeyer (Seiz's edition, 1877) says: "To mistake a malignant disease of the kidney for an intra-peritoneal growth, for an enlarged liver or spleen, for an intestinal or ovarian tumor, can only be possible in cases of special difficulty." Yet mistakes have been made by eminent men. In my table of 60 cases the true nature of the case remained completely undetermined up to the time of autopsy or nephrectomy in 17, or almost 30 per cent., even its renal origin escaping all suspicion in 11. In several others the diagnosis was merely one of probability, and I am satisfied that in many cases where the diagnosis was finally established, this was the case only toward the end of life. Later on, Niemeyer states that if, besides marked emaciation, pale or cachectic appearance and anasarca or œdema of the ankles not explained by any other disease, there occur some kidney-symptoms as pain in renal region or hæmaturia, we should above all things think of cancer of the kidney even though a tumor cannot yet be palpated with certainty. Flint in his "Practice of Medicine" devotes about one-third of a page to carcinoma of the kidney but he evidently wishes to be as nearly infallible as possible when he says "Hæmaturia, the source of the blood being evidently from the kidney, with or without preceding or accompanying pain in the region, calculous pyelitis being excluded, and a tumor in the abdomen near the site of the kidney being felt which is not movable, not lowered by the descent of the diaphragm, and not fluctuating (he does not mention the relation of intestine to tumor) render the diagnosis quite certain. The diagnosis under these circumstances is positive if cancer exist in some other situation." A case in which all the above signs were present having occurred in my practice I will relate it here. For the early history of the case before it came to me I am indebted to Dr. P. J. Fullerton of Raymond, who kindly sent me the notes from his case-book.

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[1] Case 10 of table.
[2] Case 30 of table.
[3] Case 34 of table.
[4] Case 48 of table.

[1] Case 22 of table.
[2] Case 16 of table.
[3] Case 1 of table.
[4] Case 28 of table.
[5] Mém. de l'Academie de Médicine, Vol. XXX, p. 337.
[6] Case 10 of table.

Case III.—F. K—, æt. 5½ years, was first seen by Dr. P. J. Fullerton on May 20, 188[illegible], with the history that about four weeks before, while climbing over a fence, the top board had broken, and he had fallen with his abdomen across the next lower board, and that two weeks subsequently some blood had appeared in his urine, the hæmaturia having recurred several times since, and being the only symptom. No pain or tenderness whatever. Constitution good. No heredity. Hygienic surroundings not of the best. Position erect, movements active, urine normal. On examination a tumor of the size of an orange was found in region of left kidney. No diagnosis but unfavorable prognosis. Prescribed ergot for hæmaturia, and locally ung. hyd. biniod. Six days later tumor had already increased to double its former size, and on May 31 it was found to be growing rapidly; still there was no emaciation, and boy seemed bright and active.

On June 10 he was brought to me; his appetite was poor and he had commenced to emaciate, but there was no cachexia. He complained of pains in abdomen in the evening, but was quite lively and playful during the day. A non fluctuating, somewhat elastic, immovable, nodular tumor (the different nodules being of different consistency) which could be slightly tilted forward by pressure in the loin, not descending with the diaphragm, was found on the left side of the abdomen, extending from the eighth rib to the middle of Poupart's ligament, and from the loin almost to the median line, a nodule 5 cm. long and 5 cm. wide extending thence across the linea alba at the umbilicus. The descending colon could be traced by percussion, crossing the tumor perpendicularly in front at the junction of the small tumor with the main mass, and gurgling on pressure. Under chloroform the tumor could be palpated backward almost to the kidney. The aspirator removed a few drops of brain like and muco purulent matter showing under the microscope only pus and blood globules and granular detritus. Urine 1020, acid, slightly opalescent, quite light-colored, containing trace of albumen detectable by heat, potassio mercuric iodide, sodium tungstate and potassium ferrocyanide, but not by nitric acid. No sugar. Numerous specimens examined under the microscope; some showed only numerous pus-cells, both separate and aggregated as in pyelitis, with but few red blood-discs, while others showed principally epithelial cells of varying sizes, some transparent, others granular; also one or two granular tube-casts and a single caudate cell. After standing longer copious uric acid crystals. Diagnosis "cancer of kidney, which will prove fatal in three months at most."

The parents wished to have an operation performed, but I advised against it, as I considered the disease too far advanced, and sent patient back home to die. Dr. O. J. Fullerton, of Waterloo, kindly wrote me that the child lived about one month longer declining rapidly, becoming cachectic, lying with thigh-flexed most of the time, suffering constant pains unless under the influence of opiates.

The *autopsy* six hours after death showed left kidney enclosed in a cyst which ruptured during extirpation, discharging very offensive semi fluid, brain like mass contained between two membranes, one tightly enveloping the kidney, the other fibrous, smooth, and white. Pelvis of kidney with calyces and whole interior broken down, but of normal size. Tumor estimated to weigh 6 lbs., adherent to viscera and parietes. Right kidney enlarged. Spleen normal. Liver covered with white secondary deposits. Great emaciation, especially of *right* lower extremity.

The doctor kindly sent me specimens of liver, cyst and kidney, of which I have mounted some colored sections, some of which show the development of the disease from the epithelial lining of the uriniferous tubules as described in the chapter on "Pathology," p. 620. Even when all these symptoms are present, however, errors of diagnosis are still possible. Thus Strübing records a case occurring in a woman aged 51, where on account of pain in the kidney, hæmaturia, enlargement of both kidneys and temporary presence of albuminuria, cancer had been diagnosticated, but autopsy showed cystic degeneration.[1]

The existence of tumor in the flank with hæmaturia, should awaken suspicion; according to Roberts it leaves scarcely a doubt as to the true nature of the disease. Such a case has occurred in the practice of Dr. J. P. Morison of Traer, Tama county, with whose kind permission I publish it.

Case IV.—Mrs. C., æt. 50 years, came under Dr. Morison's treatment for severe hæmaturia in the year 1876 or 1877. The first symptom had been pain in region of right kidney, which followed lifting a wash tub some time previous. A sister of patient had died of cancer of the breast. No tumor detectable. Six weeks later, the hæmaturia continuing, a tumor was first noticed in the right flank. The urine contained blood-corpuscles, tube-casts, albumen, some broken-down fragments, and at one time a *worm-shaped organized tube evidently a cast from the the ureter*. The tumor rapidly enlarged and became more movable. Bowels constipated. Health soon became impaired and cancerous cachexia well marked. The disease was supposed to be seated in the right kidney, although its exact nature remained undetermined. A consulting physician, however, diagnosticated ovarian tumor. Death occurred four months after she had first come under treatment.

The autopsy revealed cancer of right kidney weighing about 4 lbs., adherent to the colon, lying on its anterior surface. Left kidney somewhat enlarged, otherwise normal. No secondary deposits observed.

Hæmaturia is a valuable positive sign, but too much importance should not be attached to its absence. In children the diagnosis is comparatively easy, for a large tumor was detected in all the cases I have found recorded, and hæmaturia is present in two-thirds of the cases according to Seibert. Its seat in the kidney determined, the tumor can only be caused by cystic degeneration, hydronephrosis or malignant disease. As the former two are probably always congenital, the diagnosis of malignant disease in children with a non-congenital renal tumor can be made with almost absolute certainty (Ebstein). When lumbar pain alone is present, without the distinctive symptoms of tumor and hæmaturia, it is impossible to make even a diagnosis of probability, unless the pain is severe and constant and associated with cancer in other organs. Small malignant tumors may run an entirely latent course. Such cases have been described by Ebstein,[1] and by Lebert. In Guiteras's case the tumor could have been found had it been looked for.

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[1] Deutsches Archiv f. klin. Med. for 18[illegible]2.

When abdominal tumor is present, it remains to determine its connection with the kidney. Tumors of the right kidney may be mistaken for those of the liver, of the glands in the porta hepatis, diseases of the pylorus, cœcum, or ascending colon; tumors of the left kidney for enlarged spleen and disease of the descending colon; those of either kidney for tumors of the mesenteric glands, ovaries, or the uterus.

Renal tumors differ from hepatic in the following characteristics. The edge of the hand can generally be inserted between right renal tumors and the liver and by percussion a narrow strip of resonant intestine can generally be recognized. When a tumor growing from the upper part of the right kidney, by pressing against the liver, turns the latter on its transverse axis and causes it to present its broad upper surface to the anterior abdominal wall, it is very easy to fall into the mistake of diagnosticating an enlarged liver unless other symptoms lead us into the right track. This occurred in a child 4 years old, where the kidney symptoms were very trifling.[2] Tumors of the liver are apt to descend with the diaphragm during inspiration but cannot be tilted forward by pressure in the renal region. Exceptions to this rule, however, may occur as proven by a case seen by the author only a few days ago, in which an enormously enlarged liver studded with multiple abscesses caused a tumor which did not descend with the diaphragm because the corresponding pleural cavity was so filled with fluid that no movement of the diaphragm was possible on that side and which was tilted forward by pressure in the loin because it was firmly adherent to the peritoneal covering of the kidney. On the other hand, tumors of the kidney sometimes move with respiration, in my table only those of Homans and Alloway. The kidney tumor as a rule is crossed obliquely by the ascending colon, which, if too compressed to give resonant percussion, may in some cases be recognized by palpation, or by injecting air or water into it per rectum. However, as already shown under the head of "Pathology," the tumor is more frequently situated behind the tumor than credited by Roberts. Malignant disease may exist in the kidney and liver at the same time, giving rise to great doubt as to the diagnosis.

Fæcal tumors of the cæcum and ascending colon are generally easily recognized by their doughy feel, the history of the case, the changeability of their form by heredity, and the influence of cathartics.

Enlarged spleen, in the beginning, is not likely to extend as low in the hypochondrium as renal tumor, but higher toward the axillary region. Splenic, like hepatic tumor, moves with the diaphragm, and, like it, is not crossed by the colon; but Rosenstein has seen a case of cancer of the kidney where the dullness was continuous with that of the spleen, where also the colon was situated behind the tumor. The hand can generally be inserted beneath the lower surface of the enlarged spleen and can feel its sharp, firm, and notched anterior border. In enlarged spleen the history generally shows the presence of malarial poisoning or of leucæmia which latter has been observed by West to cause great splenic enlargement in an infant of three months. As hæmaturia may be present in leucæmia and renal tumor may escape detection by attacking the upper part of the kidney only, it may become important to examine the blood microscopically for an increase in the proportion of white corpuscles. Roberts mentions a case where a spleen enlarged by leucæmia with hæmaturia was taken for renal cancer. A wandering spleen has also been known to be depressed into the iliac region by a renal tumor.

An ovarian tumor grows from below upwards and has the intestine behind it in the lumbar region, yet renal malignant tumor is sometimes mistaken for it. Thus Greenhalgh[1] observed a supposed ovarian tumor during two pregnancies, and patient becoming again pregnant and dying while the propriety of an ovariotomy was being discussed, the autopsy revealed encephaloid of the kidney in an advanced stage. Cystic kidney has been successfully extirpated while the operator was intending to perform an ovariotomy.[2] When the malignant kidney is a floating one this mistake is especially liable to occur and has been made by such eminent gynecologists as Thomas and Peaslee.[4] and Lossen operated successfully on such an imaginary ovarian tumor during pregnancy. The diagnosis is still more difficult when, as has actually occurred, the renal tumor was both *floating* and situated in front of the intestine, causing an ovariotomy to be begun. Exploratory aspiration is the only safeguard against such mistakes. Vaginal examination and rectal exploration with the whole hand, according to Simon, may aid essentially in arriving at a diagnosis.

Tumors of the *uterus* are differentiated in the same way as those of the ovary.

Great enlargements of *mesenteric glands* sometimes occur in children and may cause errors of diagnosis.

Psoas abscess and renal malignant disease may be confounded with each other. The abscess may be deeply situated, showing little fluctuation, and on the other hand malignant disease of the kidney may simulate fluctuation. Psoas abscess, however, is apt to be much more tender on pressure, never reaches so high up in the abdomen, and is less oval in shape.

Aneurism simulated by renal cancer has already been referred to in the chapter on "Symptomatology." Other symptoms must be taken into account.

Ascites has been diagnosticated when the malignant growth was very soft and filled up the whole abdomen.[7] In other cases ascites existed together with the tumor, and in one case the latter was not found until the former had been relieved by tapping.[8]

Other renal tumors. The renal origin of the tumor having been determined, it remains to differentiate malignant growth from hydronephrosis pyonephrosis, perinephritis, hydatid, and cystic degeneration Niemeyer says "As a rule, malignant tumors are of greater consistency, occasional hæmaturia aids the diagnosis, which is confirmed by the recognition of secondary deposits in other organs *Rapid and irregular growth of the tumor, unevenness and nodular feel of the surface the varying consistency in different portions, speak for carcinoma*" The examination of the urine, consideration of the constitutional symptoms, and exploratory puncture, are often necessary to aid in making the diagnosis, although A H Smith thought that the puncture caused more rapid degeneration in its vicinity in his case[1] Obstruction of the ureter by cancerous particles or clots, or by a coexisting nephrolithiasis may give rise to a combination of hydronephrosis and malignant kidney In one of Jacobi's cases[2] the cancer was complicated by perinephritic abscess and evacuating the latter caused great temporary improvement The diagnosis was pyo nephrosis

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[1] Ziemssen's Cyclopædia, loc. cit.

[2] Virchow's Archiv, Vol. XIII, p. 53?.

[3] Med. Gazette, May, 1831.

[1] St. Barth. Hosp. Reports, Vol. I.

[2] Keeling, Brit. Med. Jour., December 31, 188?.

[3] Case 40 of table.

[4] Peaslee, "Ovarian Tumors."

[5] Case 30 of table.

[6] London Lancet, May 18, 1865.

[7] St. George's Hospital Reports, Vol. II.

[8] Case 38 of table.

Exploratory puncture of renal malignant disease is now more frequently resorted to than formerly but is not always very satisfactory, although Doderlein claims to have evacuated encephaloid matter showing scanty stroma with numerous cells, and Schuppel numerous colloid particles[3] In one of my own cases I also obtained cerebriform matter with muco purulent fluid, although the microscope only showed pus-globules, fatty granules and detritus Generally, however, only a few drops of blood are obtained and in a few instances a cyst has been tapped[4]

The differentiation between sarcoma and carcinoma is considered under the head of "Symptomatology"

(*To be concluded*)

MUMPS, WITH AN UNUSUAL SEQUEL

BY RICHARD McSHERRY, M D,

OF BALTIMORE, MD

All the contagious diseases present complications or sequelæ more or less familiar to practitioners but generally we find attributed to mumps only metastasis to testes in males or mamma in females or mayhap some affection of the ears, or occasional though rare suppuration of or about the parotid or other salivary glands

But in fact there may be various other complications or sequelæ which may need attention

Thus some French observers, Lannois and Lemoine, call attention to the pseudo-rheumatism which may attend or supervene upon mumps, just as it may upon other infectious diseases as erysipelas and scarlet fever It may attack the articulation or synovial sheaths of muscles, in short, there is an apparent sub-acute rheumatism which, however is not amenable to the therapeutic agency of salycilate of soda

According to Dr Fournie hearing and sight are apt to be temporarily or permanently impaired, the disorders coming on during or subsequent to the attack of mumps

Thus we may have deafness, temporary or permanent, and occasionally some of the symptoms of Menière's disease There may be otorrhœa, from catarrh of the meatus, or otherwise we may find ocular complications, as, 1, conjunctivitis, 2, inflammation of the lachrymal gland, and, 3, sensorial derangements of diverse nature

These affections are supposed to be due to the infectious principle of the disease upon the nervous system

The writer lately had a case in which there was a sequel more remote from the seat of origin than about the eyes or ears Miss S, a finely developed young lady, aged about five and twenty, demanded advice on April 16, having recently recovered from a severe attack of mumps, during which she returned home from a neighboring city She complained of great pain in deglutition, which she located especially about the centre of the sternum though radiating to the sides of the chest, and backward towards the spine There was no fever The treatment directed was R Glycerine, ℥j, syr rhu, ʒij, tinct belladonna, ʒj, mix S Teaspoonful four times a day An application was made of Thapsin plaster over seat of disease Two days of this treatment gave no relief Pain was persistent, always increased upon every attempt at swallowing, with a sense of gurgling at an apparent point of obstruction Inability to take food and a sense of oppression amounting to suffocation (*besoin de respirer*) gave her great alarm ℞ Vin ant et potass ʒj, glycerine ℥ss, ol morrhuæ, ℥i mix, of which teaspoonful doses were given at short intervals, the oil to lubricate the passage the antimonial to cause relaxation by nausea Very transient relief followed On the 21st, to ascertain if any organic obstruction was in the way, an œsophageal tube was passed down by my son Dr Clinton McSherry without difficulty but still with aggravation of pain

She was then directed to take the following prescription R Ol morrhuæ ℥ij, aq calcis, ℥iss glycerine, ℥ss morph, s gr, acid hydrocyanic dilut gtt xxx, mix, S Dessertspoonful every three hours These oleaginous mixtures were swallowed more easily than food or drink Soft eggs were ordered as the principal food They were alleged to increase pain, but this appeared to be due to the fact that pepper and salt were used upon them pretty freely which were directed to be subsequently omitted As the bowels were quite costive there was ordered R Calomel gr x, ex colchic root gr iv, in four capsules one morning and night to the desired effect As these caused no action, castor oil was subsequently given

Pain and distress in the meantime continued still severe On the 24th recourse was had to the most time-honored of the old remedies used for the neurotic disorder conventionally called hysteria thus R Gum assafœtida pulv gum acacia aa ʒj, aqua Oss. Tablespoonful every three hours

On the 25th the improvement was very decided but also coincidently there was very decided salivation A mucilaginous mouth wash with chlorate of potash and borax was directed and afterwards, for some spots of ulceration, local dressings of bismuth, rhubarb and gum arabic, all of which served a good purpose Convalescence was then fairly established

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[1] Case 11 of table

[2] Case 47 of table

[3] Eberhardt. Dissertation

[4] Case 59 of table

It is in evidence that some perturbating neurotic disturbance, some morbid sensibility, was affecting the tract of the œsophagus in the middle of its way, where it is supplied by filament from the posterior pulmonary branches of the par vagum, and thence, probably by reflex action, all the distress that pervaded the adjacent parts of the chest

Was the œsophageal disease a sequel proper of the mumps, just as a pseudo rheumatism may be, or was it merely a *post-hoc* development? In the treatment of the case the oleaginous mixtures and morphia had some relieving effect, but did not cure How much of this result may be due to the assafœtida, or how much to the profound impression made by the mercurial? There was doubtless some hyperæmia at the sensitive part of the œsophageal mucous membrane if not actual inflammation, and it is reasonable to believe that a free secretion caused at once in the salivary glands, as well as in the racemose glands of the œsophagus, by the mercurial, greatly promoted the cure Salivation was certainly no part of the design, and the writer is quite willing to let the reader judge for himself as to the remedial influence of the various agents used

Baltimore, May 9, 1885

MEDICAL PROGRESS

MATERIA MEDICA AND THERAPEUTICS

The Therapeutic Value of Arsenic in Anæmia and Atrophic Conditions Dr Samuel Wilkes, in the *Lancet* for April 11, writes strongly in favor of arsenic in many diseases where skepticism as to its use on the part of a large portion of the profession has generally prevailed There can be no doubt that many of the cutaneous affections cured by arsenic have a gouty origin, and therefore it is not surprising that the same remedy has a great power in preventing attacks of gout Then, this gouty class of persons are often neuralgic, and it may be in them especially that arsenic is the best nervine remedy He has found it amongst the most efficacious medicines, and in some cases the only remedy Thus, before the introduction of nitrite of amyl and glonoine for angina pectoris, he relied mainly on arsenic, and in some cases kept off attacks for weeks where they had previously occurred almost daily But the most remarkable effects of this remedy are seen in anæmia and various forms of cachexia and atrophy One case which he cites was a lady about forty years of age, who was pronounced to be the subject of idiopathic anæmia Her bloodless and feeble condition compelled her to keep her bed, and it was never believed that she would rise from it again Arsenic was used, she soon began to improve, and in a few weeks was able to visit her doctor at his house Her husband was not surprised at the action of the remedy, for, as he said, if he had a horse which was not "thrifty" he gave it arsenic, rendering it again plump and glossy Another case of the so called pernicious anæmia was in a gentleman who had gradually grown anæmic and breathless, so as to be unable to leave his house, and he walked with much difficulty He took five drops of liquor arsenicalis, and in a month he was comparatively well In most of the cases where arsenic has succeeded, iron had previously failed It is, however, in wasting and general cachexia that Dr Wilkes has been the most pleased with its action He details several cases where there were evidences of extreme wasting and debility, attributable to no special disease, and where arsenic effected cures

He has never given very large doses, generally four or five drops of the liquor arsenicalis three times a day, or a little more of the soda preparation, nor has he observed any injurious effects from its long use, although, as is known, it becomes absorbed into the system, the urine showing its presence many weeks after its administration has ceased

An editorial on this article, in the same number of the *Lancet*, considers Dr Wilkes' testimony as of great value, as coming from one who is far too much imbued with scientific caution to lavish undeserved credit on any pharmacopœial preparation The testimony of Dr Wilkes on its efficacy in idiopathic anæmia is borne out by the experience of many physicians, among the most recent being Dr Warfinge, of Stockholm, who reported several cases of remarkably rapid arrest of the downward progress of the disease, and even of recovery, under the use of arsenic All such cases should, however, be subjected to prolonged supervision, as it is notorious that relapses are prone to occur The same remedy has been also successfully employed in an even more definite cachexia—viz Hodgkins' disease, where the administration of arsenic has been supplemented by its injection into the hyperplastic lymphatic glands with, according to Winiwarter, astonishing results

Rhigolene or Amyl Hydride —Dr Richardson finds this useful as follows

For Burns —Camphor and spermaceti dissolve in rhigolene freely The solution so formed may be applied with cotton wool to burns The evaporation of the fluid gives instant relief to pain, and leaves over the surface a thin layer of spermaceti and camphor, which excludes air and forms an excellent dressing One drachm of spermaceti and one drachm of camphor will dissolve in two fluid ounces of rhigolene

For Iodine Disinfection —The hydride takes up iodine, making an iodine solution, useful for various purposes Applied to the surface of a fœtid wound, it leaves the iodine on the surface in finest subdivision Sprayed into the throat, the solution is useful in malignant or fœtid ulceration, one or two injections of the spray being quite sufficient to leave free iodine upon the surface Inhaled as a weak solution, it affords a means of allowing iodine to enter the respiratory tract, a little iodine being always carried over with the vapor The strength used is five grains of iodine in one fluid ounce of rhigolene One of Gamgee's excellent absorbent pads treated with half a fluid ounce of this solution becomes an iodine sponge, applicable for a variety of purposes

For Antiseptic Use.—By shaking a strong solution of ammonia with the rhigolene and then decanting off the water, an ammoniated solution is obtained, which acts as an antiseptic for inhalation.

OXALIC ETHER.—DR. B. W. RICHARDSON, in his *Asclepiad* for April, 1885, under the head of Opuscula Practica, gives some "useful notes for busy practitioners." He obtains oxalic ether by digesting equal parts of oxalic acid and absolute alcohol for ten hours at 120 degrees F., with a tube from the flask to carry over the ether into a condenser, or by heating one part of dehydrated oxalic acid with six parts of absolute alcohol with distillation and purification. The ether, at ordinary temperatures, is a colorless liquid of pleasant odor, but a decidedly biting taste. Boils at 361 degrees F. Soluble in water to the extent of four per cent. by volume. In alcohol and ethylic ether it dissolves readily. Water converts it, after a time, into alcohol and oxalic acid, alkaline solutions of potassa and soda into alcohol and oxalates of the bases, ammonia into alcohol and examide. It is easily introduced hypodermically, with a purely local action, being decomposed at the point where it is introduced, producing almost painlessly a free and dry eschar, without any marked constitutional disturbance, unless the quantity injected be excessive. Oxalic ether promises to be of service in applications either by the brush or by needle injection for the removal of morbid vascular growths.

ANODYNE COUNTER-IRRITATION.—DR. RICHARDSON, on the theory that if by strong counter-irritation the surface of the body, in any part, were rendered very vascular, the absorption of a narcotic applied to that surface caused a local insensibility much more intense than if the narcotic had been simply placed on the skin in its natural state, combines a narcotic with a counter-irritant, as follows:

1. Mustard, four tablespoonfuls, tincture of opium, two fluid drachms, glycerine, one tablespoonful, water, heated to 100 degrees F. To be applied on sponge or linen in the usual way.
2. Mustard, four tablespoonfuls, soda carbonate, half an ounce, Dover's powder, one drachm, glycerine, one tablespoonful, water, heated, sufficient to make a poultice. This forms an alkaline as well as anodyne counter-irritant for lumbago and muscular pains.
3. Cantharidine plaster, one drachm, extract of belladonna, one grain. To make an anodyne blister. This is useful for the blister at the back of the ear, in cases of pain from sub-acute inflammation.
4. Emplastrum calefaciens (Emplastrum picis cum cantharide, U. S.) is a good medium for anodyne counter-irritation. With it morphia, codeia, and other alkaloids combine well, on addition of a little glycerine.

OZONEIN.—BRAND ("Jour. de Méd. de Paris") has discovered a method of condensing ozone and preserving it in a permanent form. This has hitherto been impossible, on account of the rapid change of ozone into oxygen. Ozonein is said to be a powerful disinfectant. Evaporated in hospital wards, it is a valuable means of purifying the atmosphere. It was used with excellent results during the recent cholera epidemic at Toulon.—*N. Y. Med. Jour.*, May 23, 1885.

MEDICINE

ICTERUS NEONATORUM.—DR. HENRY ASHBY, in a note on this disease in the *Medical Times*, April 25, 1885, gives a case where jaundice made its appearance on the second day and the infant died on the eleventh, the ductus venosus being open and admitted easily an ordinary director. This he gives in support of Quincke's views (*Archiv fur experimentelle Pathologie und Pharmakologie*, XIX, 1 and 2), that icterus is due to the continued patency of the ductus venosus. Quincke points out that during fœtal life the blood of the portal vein contains no bile-pigment, or exceedingly little, inasmuch as no digestion takes place, and hardly any bile enters the intestine. After birth a striking change ensues, as digestion commences, bile is poured in large quantities into the small intestine, a small amount is absorbed by the portal vein, conveyed to the liver, where it is separated from the portal blood and re-enters the bile duct. Should, however, there be a delay in the closure of the ductus venosus, a certain portion of the portal blood, containing bile, enters the general circulation through the open duct, and gives rise to a more or less intense jaundice, which disappears on the obliteration or contraction of the duct. Other conditions favor jaundice in the newly born, viz.: (1) the destruction of the fœtal red corpuscles, which is said to take place after birth, supplies much material for the manufacture of bile pigment, (2) the epithelium of the infant's kidneys does not as readily as that of adults excrete bile pigment, as evidenced by the bile-pigment deposited in the epithelium in cases of jaundice, and its absence or existence only in small quantities in the urine, (3) bilirubin does not so readily change into urobilin in the intestines of infants as in that of adults, as evidenced by their golden yellow stools. If this view be true, it will explain why immature and weak children should be more liable to jaundice than the full time and strong infants, inasmuch as in the former the duct would be larger at birth and continue open for a longer period. In cases also where there was atalectasis and obstruction through the lungs, and consequent stasis on the right side of the heart, producing passive congestion of the liver, the blood of the portal vein would more readily pass directly into the inferior vena cava through the open duct, than pass through the capillaries of the liver.

MURIATE OF COCAINE IN EXTERNAL HEMORRHOIDS.—The uses to which the muriate of cocaine has been put led DR. H. A. SMITH, of Philadelphia, to try it as a local anæsthetic in the excision of external hemorrhoids.

The patient was a man about fifty years of age, of nervous temperament, with a timidity of pain amounting to fear, dyspeptic, and general health considerably below par. After having exhausted the materia medica of "remedies" and obtaining no relief, he finally consented to an operation. On examination he found the skin and mucous membrane around the anus a mass of corrugations with slight patches of ulceration between the folds, five piles protruded from the anal fissure, four of moderate size and one with a base about one and one half inches in its long diameter.

He considered this an excellent case for operation. After the usual preliminary preparation, he began by injecting about one third of a grain of muriate of cocaine into each of three of the piles, and in about two minutes, with scissors he excised them close to the base, the patient experiencing hardly more than slight discomfort. His timidity preventing any further operation that day, a week later he excised the remaining small pile, in the same manner, and then began on the large tumor by inserting the needle of a hypodermic syringe containing about two thirds of a grain of the salt into the base of the tumor, injecting a few drops just under the skin, then traversing the pile in its entire length, depositing the solution in the track of the needle to a point just within the skin on the opposite side. He withdrew the needle, inserted a tenaculum, put the pile upon the stretch, and excised it without inflicting the slightest sensation of discomfort except that caused by the entrance of the needle into the skin, much to the surprise and delight of the patient.

This operation suggests to me the probability of the usefulness of this drug in the painful clamp and cautery operation for the removal of internal piles.

After the operation there was an unusual amount of mental excitation, slightly flushed face and contracted pupils. This may have been due to the reaction from his profound depression previous to the operation, as he has not heard of any such effects having been attributed to the drug in the amount used.—*Medical News*, May 23, 1885.

SURGERY

ON THE USE OF THE GALVANO-CAUTERY IN EYE DISEASES, ESPECIALLY IN DESTRUCTIVE PROCESSES OF THE CORNEA.—DR. A. NIEDEN, of Bochum, has written a paper on this subject which has been translated by DR. J. B. MCMAHON, of New York, and is to be found in the *Archives of Ophthalmology* for March, 1885. The application of the actual cautery was introduced into ophthalmic practice about ten years ago, yet it did not take a firm hold on the profession, and it was only after the pathologico-anatomical recognition of the infectious character of most of the destructive ulcerative processes in the cornea, and the finding of the cause of the disease to lie in the mycotic action of fungi in the corneal parenchyma, that the galvano-caustic method was strongly recommended (Sattler, 1883) as a most powerful antiseptic agent.

Dr. Neiden has been using this method for a year past in about 140 cases, embracing serpent or rodent ulcers, scrofulous abscesses, both marginal and central, the frenulum phlyctenulare with a patch of infiltration at the apex, the parenchymatous corneal abscesses occurring in trachoma, and in xerosis cornea. He reviews a hundred of these cases, and then passes to consider the form of instrument to be employed and its mode of application. He prefers Sattler's small galvano-caustic apparatus to the Paquelin thermo-cautery, his objection to the latter is partly on account of the greater complication of the technical apparatus, a spirit lamp, continuous blowing, etc., being necessary in its employment, and occasioning great inconvenience to physician and patient, but mainly because we cannot get a white-hot tip sufficiently delicate to allow of the nice manipulation necessary for working in a district of no more than a millimetre in extent. This neat manipulation is possible only with the galvano-caustic loop, which is brought to a red heat at the exact moment when it is needed, and cools as quickly, and which, moreover, produces no annoying light effects by the slight glowing of the thin wire. As a substitute for Sattler's key, Dr. Nieden has had a point made (of which he gives a cut) which makes it possible to use the handle and point as a lever in the hand of the operator, who can then conduct his manipulations more safely and rapidly. The operator holds the instrument, which is connected with a powerful Grenet element, in such a way that the handle rests on some point situated below the eye of the patient, its point at the same time corresponding with the centre of the ulcer. The current is then closed. When the point glows on releasing the button, a slight lever movement is sufficient to press the point rapidly and surely into the tissues to be destroyed, and by a rapid circular movement, without lifting the instrument, the whole border of the infiltration can be destroyed. He gives in conclusion the following resumé:

(1) The use of the galvano-cautery is always indicated in affections of the cornea which take their origin in mycotic infection.

(2) In such cases it gives the most thorough disinfection of the floor and edges of the ulcer, and at the same time stimulates the process of repair.

(3) This process of repair is shown almost at once, in the increased diffusion power of the corneal tissue, the clearing of the aqueous humor, dilatation of the pupil, and absorption of the hypopyon.

(4) In most cases, also, it does away with the necessity of the corneal incision, because, when the evacuation of the contents of the inner chamber is required, it can be effected by means of the heated loop. Above all, the cautery can be immediately resorted to when the malignant nature of the process is evident, and accords with the maxim, "Principiis obsta."

(5) The operation causes but slight pain, no assistant is needed, anæsthesia is unnecessary, and the treatment is available in the treatment of patients at the polyclinics.

(6) A rapid disappearance of the ciliary irritation is almost always observed. The duration of the healing process is considerably lessened. The final result gives a much less extensive and dense opacity of the affected corneal tissue than is found after the use of the other methods.

(7) The mode of applying the heated galvano-caustic loop is exceedingly simple and easy to master.

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE, INCLUDING POSTAGE

PER ANNUM IN ADVANCE $5 00

SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

No 65 RANDOLPH STREET

CHICAGO ILLINOIS

SATURDAY, JUNE 6, 1885

THE COMMITTEE ON THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS AGAIN

Since writing the leading editorial on this subject in the preceding number of the JOURNAL we have learned, from various sources, of such movements as indicate a very imperfect if not entirely erroneous view of the action taken by the American Medical Association at its recent meeting in New Orleans The movements here alluded to seem to be founded on the idea that the Association in New Orleans created an entirely *new* committee, authorized to act separate and distinct from the old or original committee appointed by the meeting in Washington And in accordance with this idea, we learn of one *movement* in behalf of the supposed new committee for an agreement among its members on a time and place of meeting, and of another movement in behalf of the previous committee for an agreement as to the time for it to meet in Washington, thus endangering the development of two committees meeting at different times and places, between which controversies could be kept up indefinitely Certainly if there is any one thing plain on the face of the proceedings of the meeting in New Orleans, it is not the appointment of a new committee but the enlargement and alteration of the previous committee The clear and explicit language of the first resolution adopted is as follows

"*Resolved*, That the committee appointed by this Association to arrange for the meeting of the International Medical Congress in America, in 1887 be *enlarged* by the *addition* of thirty eight members one from each state and territory the army navy and marine hospital service" etc

Does the enlargement of an existing committee by the *addition* of a definite number of new members, make the new members thus added a separate committee? Not unless the English language has lost its meaning If it is claimed that the second resolution recognized the new additions as a distinct committee, we may admit that in a qualified sense it did, but for a single specified purpose only That purpose was "to fill all vacancies that may occur by death or inability to attend the committee meetings"

Apprehending, that some of those who had been appointed representatives of states, might not be able to attend the meetings of the general committee, or that vacancies might occur by death or resignation, the Association, in the second resolution, simply provided for the filling of such vacancies, and nothing more In saying "nothing more," we do not forget the last clause of the resolution, which is, "and to appoint the *officers* of the *Congress*" Such a clause, however, is a nullity from the nature of the case The Association has no right to appoint the officers of the International Medical Congress, nor the power to confer such a right upon any committee whatever The International Medical Congress in America, when it assembles, will have full power to elect its own officers And we cannot help thinking that all allusions to that subject at this early period are premature and in bad taste Former precedents have rendered it proper for the committee of arrangements, when calling any national or international body to order, to nominate a president and a suitable number of vice presidents, and usually such nominees are elected And we trust nothing more than this will be done, or attempted to be done, by any committee in regard to the International Medical Congress of 1887

Granting all that can possibly be claimed for any special powers conferred by the second resolution adopted in New Orleans, the fact still remains that there is but *one* committee on the organization of the International Medical Congress, authorized by the American Medical Association and that is composed of the original eight members appointed by order o the Association at its meeting in Washington and t additional thirty-eight authorized to be appointed the first resolution adopted by the meeting in New leans And the call for any meeting of the ge committee which does not include an invitation these equally, will be defective As all the ch cers and the majority of the executive comm remain members of the reconstructed com would seem most appropriate that they shou initiative in calling a meeting of the pre committee, after due consultation with the members, new and old, as to the most convenient time and place for such meeting. It is useless to deny the right of the Association to reconstruct the general committee, or to authorize a revision of its acts. The American Medical Association, as the only national medical organization composed of delegates from the profession of all the states, and representing in its membership all departments of the profession, through its original committee extended a cordial invitation, in the name of the profession of the United States, to the International Medical Congress assembled in Copenhagen, to hold its next meeting in America. At the same time it conferred upon the committee, in case the invitation was accepted, authority to continue its existence, add to its numbers, and exercise all the powers of a committee of arrangements for organizing the Congress. But the Association, in conferring these powers and duties upon its committee, by no means abrogated its own authority in the premises, nor relieved itself from the responsibility it had assumed to see that the arrangements for the Congress, it had invited, were properly made. If, in exercising the power conferred upon it for adding to its number of members, the committee made those additions on too narrow a basis, by selecting them all from the profession of a few chief cities, instead of from that of the nation, had not the Association a perfect right to withdraw so much of the power it had conferred as was necessary to correct the error, and substitute additions of its own selection? The idea that the powers and duties enjoined upon a committee of arrangements, appointed by a permanently organized association, are in the nature of *vested rights* by which such committee becomes an independent body, self perpetuating, and responsible to no one, has not hitherto been widely entertained in this country. On the contrary, the Association having taken upon itself the responsibility of inviting the International Medical Congress to meet in this country, cannot relieve itself from the additional responsibility of seeing that the arrangements for such meeting are properly made. And the profession in other countries may rest assured that the responsibilities thus incurred will be fully met, and that every needed arrangement will be made in due time.

CHEMISTRY IN THE MEDICAL SCHOOLS.

In our issue of May 2d we referred at some length to editorial articles in the *British Medical Journal* and the *New York Medical Journal*, in both of which it was strongly urged that chemistry be omitted from the list of studies in the medical schools, and it will be remembered that we strongly endorsed the utterances of our contemporaries. We should not have thought it necessary to refer to this subject again at so early a date, but for an editorial article in the *Maryland Medical Journal*, of May 30th, and a letter from a correspondent in California.

Our contemporary in Maryland seems to misunderstand the principal objects for which chemistry is taught to students of medicine; it is scarcely possible to infer otherwise from his editorial article than that chemistry is to be taught to students of medicine for the *chemistry* itself—in order that they may learn chemistry proper. But it is easily seen that this branch is taught in order that the student may comprehend physiology, materia medica, and chemistry as applied to them, not that he may become a professional chemist. "It is asserted as a fact that chemistry is generally taught superficially at the medical schools, so much that the recent graduate only knows enough to pass a parrot-like examination, having been crammed or coached for the purpose, after which he forgets even this little acquirement. In many instances this is undoubtedly true, but the same may be said of various other branches. The average doctor probably knows as little of physiology, for example, after five or ten years' practice as he does of chemistry, but therefore should instruction in physiology be excluded." To this it need only be answered, that if the average doctor knows as little of physiology after ten (or forty) years of practice as of chemistry it is the fault of the man and not of the study itself or of any system of teaching. There is no more excuse for forgetting physiology than anatomy or materia medica.

"Most medical students are young men of small means, and they are necessarily obliged to economize in time and money. The schools, as time goes, must make their arrangements for the great majority, not for a small minority. Their teaching is, and ought to be for the most part elementary." We cannot see that the income of the student, either as regards time or money, has any relation whatever with the amount of instruction which he should receive before human lives are placed in his hands. We are perfectly well aware that some schools seem to grade their courses on the principle that the applicant should receive his degree whether he has the proper amount of time, money, or brains at his disposal or not—but we cannot indorse it. Any principle which proposes to adjust the teaching of the schools to the students, instead of requiring that the student be adjusted to the schools, and to the necessities of high education, is fallacious in the beginning and product-ne of evil in the end. We are sorry to see our contemporary holding to the view that the student should be allowed to dictate to the schools. Nor can we altogether agree with the statement that the teaching of the schools "is, and ought to be, for the most part elementary, though this depends to a great extent on the meaning of the word elementary," as here used. It cannot be said that a student's knowledge of anatomy, chemistry, physiology, and materia medica *ought to be* elementary when he receives his degree. In medicine and surgery he has much to learn by experience, but he should have passed beyond the elements of these branches when his school endorses him as fitted to practise his profession. When a student knows only that atropia is the antidote to morphia, without being able to explain why it is antagonistic, his knowledge may be said to be somewhat elementary, but when he can state that *why* clearly and explicitly his teaching has been more than elementary.

It is not proposed that chemistry shall be so far neglected at the medical schools that it will be entirely forgotten, on the other hand, the *British Medical Journal*, in the editorial which formed the basis of our remarks a few weeks ago, urges that the time now given to it shall be devoted to the study of chemistry as applied to physiology and other branches of medicine. This would necessarily pre-suppose a pretty thorough acquaintance with theoretical and practical chemistry, and instead of being forgotten while the student is busied with the study of medicine, its use in laboratory work would grind it in so that it could not be forgotten. Our contemporary says further: "Withal, the reasons for retaining the chair of chemistry in the medical schools greatly preponderate over the objection of incomplete teaching which may apply to other branches as well." Now, one of the objections to retaining chemistry in the schools is, that it interferes with the proper teaching and learning of the other branches, and it is certainly no argument against the abatement of one nuisance to say that others exist. Again: "The student gets his elements in the college only. These acquired, all more or less defective, he is prepared for obtaining proficiency subsequently in the special learning that he may most affect, or that may be most useful to him." This should have been written of, and certainly applies to, the academic schools and colleges. The tree gets its elementary dressing at the saw-mill—the academic school or college, if it is then seen that it can be made into a chair it is sent to a furniture shop—the medical school, if unfit, it is rejected. But no one sends the tree directly to the cabinet-maker's there to receive the whole dressing. The same should be true of the medical school, the applicant for admission should be so "dressed" that he needs no further elementary hewing or sawing, if he does, he should be rejected until he is fitted to begin the study of the proffession. We entirely agree with the *New York Medical Journal*, when it says: "We believe that the time will come when the medical schools will refuse to patch up the defects in the students preliminary education, and will assume that a man who has not a decent knowledge of the sciences, has no right to aspire to be a physician."

In connection with this subject we have just received a letter from Dr. A. M. Wilder, of San Francisco, in which he states that chemistry proper was dropped from the curriculum of the Medical Department of the University of California three years ago, although our editorial of May 2d gives the inference that the idea was entirely new. While we are pleased to learn that the school referred to has met with success in this venture, we had no intention or desire of leaving the inference that the idea was new. We followed the lead of our British and New York contemporaries, and mentioned the matter because we believed it worthy of great attention. We are glad that our correspondent has called attention to its success in the University of California, however, as it is, so far as we know, the first practical proof that the idea is correct.

THE FORMATION OF PTOMAINES IN CHOLERA.

Since the discovery of the toxic alkaloids which are formed in decomposing animal matter, the question has arisen as to whether these same alkaloids, or different alkaloids, are not formed during life in certain diseases which seem to terminate as though by some poison. In a recent article on this subject, M. A. Villiers says that in spite of the many attempts that have been hitherto made to demonstrate the formation of these alkaloids, their existence does not appear to him to be entirely established. In November, 1884, he examined the organs of two choleraics for these alkaloids, the organs were examined twenty-four and twelve hours after death, respectively, and the results were identical.

By Stas' method he found an alkaloid well characterized by its alkaline reaction, and by its chemical reactions, it was found in considerable quantity in the intestine (as much as 2 centigrammes of the crystallized hydrochlorate), much less in the kidneys, and scarcely traces in the liver and blood. The alkaloid was liquid, of an acrid taste and an odor of fresh hawthorn. Its reaction was distinctly alkaline, and it was found that it was an energetic base liberated only by alkalies, not by the alkaline bicarbonates. The hydrochlorate is neutral to turmeric paper, and crystallizes in long, fine, transparent needles, which are extremely deliquescent.

For studying the physiological action of this alkaloid the watery solution was used, though the small quantities at his disposal precluded any great number of experiments. Small doses, 1 or 2 centig., injected under the skin of a frog, gave rise to no very well characterized phenomena. When 6 centig., however, were injected under the skin of a young guinea pig, the resulting phenomena were very marked, consisting at first of periodic variations in the cardiac beats. Three quarters of an hour after the injection the anterior limbs were seized with violent tremblings, which extended to the posterior limbs, and then disappeared. Death took place four days after the injection, the animal having refused food during this time. The autopsy showed some subpleural ecchymoses, slight cerebral congestion, and the heart, arrested in diastole, full of liquid blood.

As has already been said, the alkaloid was found principally in the intestine, in small quantity in the kidneys and almost completely absent from the blood and liver, thus showing that it was rapidly eliminated by the urine. VILLIERS now proposes to see if the same or similar alkaloids cannot be found, during life, in the organs, in certain other diseases, more particularly typhoid fever. He thinks that the study of these alkaloids may furnish some very useful indications in therapeutics, for if it is true that there are diseases which terminate by poisoning, then this poisoning may be checked in its formation by administering an antagonist to the alkaloid, until its producing cause has disappeared. He *thinks it possible that in cholera the continuous* action of iodine water may be useful, so as to transform the alkaloid into an insoluble compound, or if this has a caustic effect on the mucous membrane of the intestine, especially when deprived of epithelium, iodide of starch may be used. How far he may succeed in his attempts it is impossible to predict; each experiment in a new field of physiological chemistry seems but the opening to endless research. Significant in this connection is the following, from Mr. Watson Cheyne's "*Report on the Cholera-bacillus*." "In the case of cholera, the cause is apparently situated in the intestinal canal, and, if there is any blood-affection at all, and there seems great reason to believe that there is, it is probably due to the presence of a chemical poison produced by this cause."

SOCIETY PROCEEDINGS

ANNUAL MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY

The thirty-fifth annual meeting of the Illinois State Medical Society was held in Springfield on the 19th, 20th and 21st days of May, 1885. About one hundred and thirty members were in attendance. The meeting was called to order on the morning of the 19th, by DR. B. M. GRIFFITH, Chairman of the Committee of Arrangements. The PRESIDENT, DR. D. S. BOOTH, of Sparta, took the chair, and the proceedings were opened with prayer by REV. W. N. MUSGROVE.

His Excellency, GOVERNOR OGLESBY, being introduced by the Chairman of the Committee of Arrangements, welcomed the members of the Society in an address showing his high appreciation of the profession, and its intimate relations to the most important interests of society.

DR. E. P. COOK, of Mendota, delivered a brief and appropriate response.

The PRESIDENT, DR. D. S. BOOTH, then delivered the

ANNUAL ADDRESS,

which contained allusions to many things, some serious and some facetious, but from which we gathered nothing of special importance.

The Society then took a recess until 2 o'clock P. M.

AFTERNOON SESSION.

The order of business being the reports of standing committees, DR. DAVID PRINCE, of Jacksonville, Chairman of the Committee, read his

REPORT ON GYNECOLOGY.

He exhibited a great variety of gynecological instruments, but the most important part of his report related to the treatment of chronic inflammation, accompanied by hyperplasia and plastic exudations within the pelvic cavity. In such cases, instead of relying altogether upon the usual hot water irrigations and douches, he strongly recommended the use of the interrupted or faradic currents through the diseased structures.

DR. C. W. EARLE, of Chicago, Chairman of the Committee, then made the

REPORT ON OBSTETRICS.

He arranged the topics embraced in his report under the heads of the Anatomy and Physiology, the Therapeutics, and the Pathology of Midwifery. Under the head of Therapeutics he alluded to the recent paper of Dr. J. Suydam Knox on the oxytocic properties of the cimicifuga racemosa. Dr. Knox had reported a considerable number of cases of labor (150) in which the process had been rendered less distressing, and shortened in its duration, by the internal administration of this drug. Both Dr. Knox and the reporter speak of this as a new use of the remedy. But we think a careful examination of our medical literature will show it to have been used for the same purpose many years since. It is none the less worthy of further trial, however, on that account. Under the same head he referred to the value of electricity in controlling post-partum and accidental uterine hemorrhages, both in his own practice, and as set forth in a recent paper by Dr Bates, of Texas The faradic currents were used

In the brief discussion which followed this report, Dr David Prince gave decided preference to effusions of cold upon the abdomen for the arrest of post partum hemorrhage

Dr C Truesdale, of Rock Island while commending the immediate operation for laceration of the perineum, thought great care should be exercised in bringing the lacerated surfaces into exact apposition, to prevent the leaving of spaces or pockets in which the lochial discharge or blood might be retained, and undergo septic changes highly dangerous to the patient

Dr T M McIlvaine, of Peoria, Chairman of the Committee on

DRUGS AND MEDICINES,

presented a report treating chiefly of what he termed "Medicinal and Non-medicinal Therapeutic Agents," but in listening to which we gathered nothing of importance not already familiar to the profession

The work of the day was closed by a report of some interest on the

PROGRESS OF OPHTHALMOLOGY AND OTOLOGY,

by Dr W G Montgomery, of Chicago, Chairman of the Committee, and Dr Robert Tilley, an associate member of the same Committee

In the evening the members of the Society were cordially received in the Executive Mansion by Gov Oglesby and his accomplished wife

WEDNESDAY, MAY 20—SECOND DAY

The Society convened at 9 A M, the President, Dr D S Booth, in the chair After notices by the Chairman of the Committee of Arrangements, the subject of

MEDICAL LEGISLATION,

more especially in relation to amendments needed in the laws relating to the commitment of the insane, and in relation to the regulation of the practice of medicine, was discussed for an hour or more

The call for reports of committees was then resumed, and Dr E F Ingals, of Chicago, read an interesting paper on

THE RELATION OF RECURRENT LARYNGITIS TO CHRONIC POST-NASAL CATARRH

He claimed that in very many cases the laryngeal affection was simply the sequel or extension of the nasal affection, and gave several cases in which the removal of the latter was followed by entire relief from the former He advocated the use of the galvano-cautery for removing the more obstinate indurations and hypertrophies of the Schneiderian membrane, the process causing but little pain if the parts were first treated with a solution of cocaine hydrochlorate

Dr J P Mathews, of Carlinville, presented a patient on whom the operation of

TRACHEOTOMY FOR STENOSIS OF THE LARYNX CAUSED BY ULCERATION FOLLOWING TYPHOID FEVER

had been performed on Jan 6, 1885 The patient had recovered, but was still wearing the tube Remarks were made by Dr Prewitt, of St Louis, and by Dr F E Waxham, of Chicago, the latter claiming that many cases of laryngeal stenosis could be better treated by tubing than by tracheotomy

AFTERNOON SESSION

On assembling at 2 P M, Dr A E Hoadley, of Chicago, read a paper on the

TOO FREQUENT FEEDING OF INFANTS AS A CAUSE OF DISEASE, AND AGAINST THE USE OF ONE COW'S MILK

The paper contained the detail of cases, showing that the too frequent nursing or feeding of infants was capable of inducing vomiting, diarrhœa, and serious gastro-intestinal irritation He thought infants should not be fed oftener than once in two hours, and that the milk of one cow was more likely to vary injuriously in its quality than the milk of several cows mixed, unless great uniformity was maintained in the care and feeding of the one cow

Dr C Truesdale, of Rock Island, read a paper on the

TREATMENT OF TRAUMATIC TETANUS,

relating several cases in which the treatment had resulted in the recovery of the patients The chief points of importance on which he insisted, were the bringing of the patient as early as possible fully under the influence of different narcotics and nervous sedatives in succession, instead of maintaining the full protracted influence of any one or two articles He brought his patients first under the narcotic influence of morphine for one day, then physostigma in pretty full doses for one or two days, after which he gave a combination of chloral and bromides He also saturated the parts around the original seat of injury or wound, as early as possible, with a six per cent solution of carbolic acid used hypodermically

The next paper read was an interesting one on

THE TREATMENT OF EPILEPSY,

by Dr D R Brower, of Chicago He did not propose new remedies, nor place emphasis on any specific treatment by bromides or other remedies, but rather encouraged a more careful search for the causes and actual pathological conditions of each case, and the rational adjustment of remedies, whether medical or surgical, to the indications afforded thereby

During the evening, the members of the Society were elegantly and very pleasantly entertained at the residences of Drs H B Buck, F L Mathews and B M Griffith

THURSDAY, MAY 21, THIRD DAY

The Society convened at 9 A M, the President in the chair Reports and papers were read and briefly discussed by Dr H J Reynolds, of Chicago, on the *Treatment of Eczema,* Dr W A Byrd of Quincy, on *Surgery,* Dr W H Veatch, on *Obstruction of the Bowels,* and Dr Bassett on *Medical Education*

We have thus given only an outline of the more important doings at this annual meeting of the Society, which was altogether an interesting and profitable one

OFFICERS, AND CHAIRMEN OF COMMITTEES FOR THE ENSUING YEAR

President—William A Byrd, Quincy

1st Vice-President—W F Kirk, Atlanta
2d Vice-President—A Wetmore, Waterloo
Permanent Secretary—S J Jones, Chicago
Assistant Secretary—Hiram Luce, Bloomington
Treasurer—Walter Hay, Chicago
Committee of Arrangements—J L White, Bloomington
Practice of Medicine—M F Bassett, Quincy
Surgery—C Truesdale, Rock Island
Odstetrics—W W Jaggard, Chicago
Gynecology—J H Etheridge, Chicago
Drugs and Medicines—E B Montgomery, Quincy
Ophthalmology and Otology—Robert Tilley, Chicago
Necrology—E Ingals, Chicago
Orthopædic Surgery—C E Webster, Chicago
Diseases of Children—F E Waxham, Chicago
The Microscope and Gynecology—O B Will, Peoria
Dermatology—Henry J Reynolds, Chicago
Chairman Committee on Publication—J F Todd, Chicago
Physiology—A Wetmore, Waterloo
Insanity—A T Barnes, Bloomington
Committee on Legislation for Insane—Walter Hay, Chicago
Committee on Medical and Sanitary Legislation—B M Griffith, Springfield
Biographical Committee—J H Hollister, Chicago
On the Influence of Appreciable Meteorological and Topographical Conditions on the Prevalence of Acute Diseases—N S Davis, Chicago

CINCINNATI ACADEMY OF MEDICINE

Stated meeting, April 27, 1885

The President, Sam'l Nickles, M D, in the Chair

Dr George W Ryan read a paper on

THE TREATMENT OF POTT'S DISEASE

He adopted the decision of Stillman of the various mechanical methods in use at the present time, viz Simple friction, extension by traction, local extension, and backward traction The apparatus generally found in the shops represented the idea of simple fixation in an imperfect degree He has had a large experience with the Knight apparatus of this class, and thought very favorably of it in a certain class of cases It is a simple steel frame, easily made and readily fitted, and capable of excellent service in diseases of the lower dorsal and lumbar regions, and when used as a base in cervical disease The method of extension by traction was then reviewed, the plaster treatment and its substitutes representing this class The suspension process, the essayist held, was unwise when bony destruction had taken place, was useless, as it did not in any way remove or lessen the true curvature, but only obliterated compensatory curves It was generally uncomfortable and often cruel, but fortunately owing to the reflex, muscular contraction of the spinal muscles had done little harm. The reader spoke of the great benefits which have been derived from the plastic treatment in its immediate results, but could not look upon it as the best method of treating Pott's disease It certainly had many advantages, but also many disadvantages, and the essayist believed it to be a failure except in lower dorsal and lumbar disease, where any simple support was equally as satisfactory

The method of "local extension" by means of the divided jacket, introduced by Wyeth, of New York, the speaker thought had not come into general use It was exceedingly questionable whether local extension could be secured in the region designed for the application of the method, in fact the speaker thought it impossible with an apparatus with which the patient would be at all comfortable The principles of the Taylor spinal assistant, that of a double lever with the fulcrum at the seat of disease, was held to be the most efficient means of managing this disease Something more than simple fixation was required in the cervico dorsal and upper dorsal regions and the application of this principle was the readiest and simplest method The treatment by recumbency with the cuirass, the reader thought was an excellent method in infants under two and a half years, and related a case of upper dorsal disease in which an excellent result had been obtained by its use

Concerning the abscesses of this disease, the essayist thought that nothing should be done unless hectic was present or if the abscess was large the aspirator should be used Open incision was condemned in any circumstance

Dr D S Young said, that he had been disappointed in a great measure in the plaster, but did not believe that any single method offered the best treatment for all cases He thought that there was a great deal of luck in the result obtained in certain cases He could agree with the essayist in his statement concerning the management of abscesses He did not think the question of weight was a reasonable objection to the plaster, as he was in the habit of applying light jackets with satisfactory results He did not agree with the statement that the suspension process was not in general use, as he believed the majority of practitioners still used it

Dr Christopher reported a case of cervical trouble, which was thought might be Pott's disease, in which he had enveloped the neck and head to the eyebrows with the bandage, securing a support which allowed only the movement of the lower jaw The result was a very gratifying one, a complete cure taking place He did not believe he could have secured such an efficient support with the jury mast

Dr Frank Taylor described the method used by Dr Coffman, of this city, in molding the leather over a cast secured by filling a plaster jacket after its removal with soft plaster

Dr Giles S Mitchell spoke of the difficulties and painfulness of suspension in young children, but was inclined to regard the plaster treatment much more favorably than the surgical, and in this connection reported two cases of lateral curvature in girls of eight and ten years, respectively, in which the curvature had disappeared under its use

Dr Ryan, in closing the discussion, said, with reference to Dr Christopher's case, that the diagnosis of Pott's disease the atlas or axis was always difficult, but judging the case more perhaps by the result than anything else, said the case did not seem to be one of this disease. The method of support had certainly been a most efficient one, and the result was gratifying, still he thought the method cumbersome, and one that few patients would permit. The same result, he thought, might have been obtained with a jury mast or Taylor chin piece. The method of molding the leather jacket spoken of by Dr. Taylor had been introduced by Dr. Ap Morgan Vance, of Louisville, some three years ago, and was that in general use. Concerning Dr. Mitchell's cases he thought the result gratifying, but rather unusual. He was inclined to think the cases rachitic rather than true rotary lateral curvature. He thought the plaster treatment was much less adapted to lateral curvature than to spinal caries, as under its use in the first named distortion, the muscular exercise which was a necessity in its successful management could not be obtained.

Dr. C. W. Palmer reported a case of

PAPILLOMA OF THE BLADDER.

Patient, an American, aged 50, married, a multipara past the menopause, presented herself in January, 1884. She complained of dysuria, hæmaturia and vesical tenesmus. Physical and microscopical examination showed papillæ, blood corpuscles and mucous strings, but no tube casts. She was put on treatment, and in March, while under ether, the urethra was dilated, the finger introduced, and a papillomatous growth, half as large as a hickory nut, was discovered. This was removed by the finger-nail. The bladder was washed out and the patient made a comparatively good recovery, remaining in this condition for several months. Her old symptoms gradually returned, however, and became so aggravated that another and more radical operation was determined upon.

In March, 1885, just one year after the first operation, with the assistance of Drs. Zinke, McKee, and Kebler, Dr. Palmer made a vaginal cystotomy. He found a growth as large as the thumb, which he removed. The bladder was allowed to remain open, and the urine to flow at will. No bad symptoms followed the operation except a slight elevation of temperature for one day. She soon began to feel quite comfortable, and has remained so up to the present time, six weeks after the operation. The urine flows at times through the opening of the bladder, sometimes through the urethra. The reader recommended vaginal cystotomy, as compared with dilatation of the urethra. It requires less skill, is done in less time, there is less danger attendant upon it, the recovery is more rapid, and the removal of the abnormal growths more satisfactory and complete. Chronic cystitis is often present in these cases. The complete rest given by this continuous drainage of the bladder is found to be very advantageous. The incision is usually allowed to remain open. It sometimes heals spontaneously, and again remains permanently patulous. He could not promise that the patient would remain in her present favorable condition. The papilloma, he thought, changed sometimes into an epithelioma.

Stated Meeting, May 4th, 1885.

Dr. W. H. Kelley read a paper on

ANTIPYRESIS.

A high fever, he said, is not dangerous in itself, but if allowed to continue for some time, structural changes occur which may be followed by death. These changes are dependent upon the rapid oxidation of the nitrogenous elements of the body, and the deposition of fat in their stead. Microscopical and chemical examinations show that this tissue is not always pure adipose, but compounds of two varieties. In one the normal striæ are obscured or are invisible, and within the sarcolemma are numerous small granular bodies, highly refractive, and giving to the muscular tissue, by transmitted light, a dark appearance. In the other variety the striæ are also obscured, and this tissue has been replaced by a colorless, homogeneous mass resembling wax.

The great danger in hyperpyrexia is cardiac paralysis, to prevent which is the great object. The nervous system is much affected, and instead of the active delirium in the early stages there may be low, muttering delirium, gradually passing into stupor and death from cerebral paralysis. A moderate fever of long duration will produce more serious changes than a high temperature of much shorter duration. In the greater number of cases, the fever must be considered as a disturbance of the heat-producing or heat-losing functions. Quinine, as is well known, diminishes the oxygen carrying power of the red blood-corpuscles, which materially interferes with and checks the tissue metamorphosis. The treatment is principally by means of quinine, salicylate of sodium and cold. Quinine is probably not only the most popular antipyretic in use, but also the most reliable. The reader recommended that quinine be given in doses of gr. xx–xlv, or salicylate of sodium gr. lxxv–cx, within three hours, and cold baths repeated often enough to keep the temperature below the danger line, or even near the normal.

Dr. J. T. Whittaker said that cold baths cannot be used in private practice in this country but are very useful in hospitals. He did not think that less than gr. xx of quinine was an antipyretic, and thought that Dr. Kelley had not attached sufficient importance to alcohol, which is one of the most efficient antipyretics.

Dr. Young never uses quinine in doses less than gr. xx or xxx. He uses cold sponging with good results, but is not very much in favor of cold baths.

Dr. Palmer finds that gr. x of quinine act very well. He uses the bisulphate, in the form of compressed tablets. He has great faith in tincture of veratrum viride; it reduces both the temperature and the pulse.

Stated Meeting, May 11, 1885.

The President, Sam'l Nickles, M.D., in the Chair.

Dr. Schoolfield reported a case of

FLESHY MOLE.

Mrs. M——, æt. 34, Vpara, youngest child 3 years,

In a late number of the *Westminster Review*, Dr John Chapman advances the theory that cholera is essentially a nervous disease, which is non contagious, and springs from a vitiated or impaired condition of the sympathic system The article is exceedingly ingenious, well written and graceful, but absolutely valueless in a scientific view, since it regards intercurrent phenomena, as a *primary* cause, and cites as proof the exaggeration of nervous detail which always obtains in cholera epidemics, forgetting that these physic panics, depending upon an "expectant attention" directed into depressing channels of thought, that these fanatical superstitious and hallucinations *are not themselves causes of the disease, but are* rather engendered by *fear* of the disease The system thus weakened is an admirable field for the im*plantation of the germ* Dr Chapman's theory is about on a plane with that which sees a mere disturbed nervous condition in hydrophobia, which the patient creates in *himself* At a discussion in the Munich Medical Society, von Pettenkofer, in referring to the book of Dr James Cunningham (Cholera, What can the State do to prevent it? Calcutta, 1884), said that the author was for thirty-three years an active medical officer and physician in India, that for twenty years he had been the head of the medical department there He was vigorously opposed to a belief in the *contagiousness* of cholera and its practical consequences Cunningham proves conclusively that quarantines, inspection, blockades, and isolation of persons suffering with cholera, disinfection of the excrement, etc, have been shown to be of no purpose Neither in place nor in time has the development of the railroad system in India fostered or intensified the epidemic During the epidemics, the cholera spread in directions where there were no railroads whatever, and often in directly opposite directions The breaking out of cholera among pilgrims in different places has no influence upon spreading the disease For example, in the year 1867 and 1879, three pilgrims (attacked with cholera, many of them dying before they returned home) spread themselves all over India The epidemic followed a certain well defined course Quarantines were not advised by the Indian Government, because it had been previously shown that they were of no service and entailed many disadvantages According to experience in India, cholera epidemics are never caused by drinking water The drinking water theory contradicts the complete history of the cholera in India The only preventive measures of value are *cleanliness*, good *sewerage*, *pure water*, and *fresh supplies* The local danger, and not its contagiousness, was the only thing to be feared v Pettenkofer gave many statistical tables showing the epidemics in Prussia in 1848—1860, as well as in Saxony and Bavaria The fact was developed from these tables, that certain months, (especially April), favored the disease Then this "seasonal" regularity is incompatible with the idea that the disease, if transferred from the diseased to the healthy, as the case most undoubtedly with syphilis (for example) The speaker concluded by asking the question "What would happen if the Government regulations were to be based upon Cunningham's views?" He reminded the society of the first cholera epidemic in Europe After Prussia had spent much money upon plans based upon the theory of contagion, and after the "wild measures of Dr Rust," and after much misery had been caused among the people, many forsook their original belief in contagion and accepted Cunningham's views, that the intercourse of men had nothing to do with the spreading of cholera, and that the disease developed out of the "Genius Epidemicus" The Kingdom of Bavaria made an antagonistic experiment which, to the speaker, seemed to be of much more value, than those now being made upon animals The cholera was officially declared to be non-contagious, and when the statistics of these cities which had accepted the view of contagiousness, were compared, the results were largely in favor of Bavaria The lecturer closed with the *cæterum censeo*, that the Government should refrain from wasting millions upon developing a theory of contagion That it should keep trade open, and that appropriations should be expended upon sanitary improvements, and not upon useless cordons and quarantines

Dr Emmerich then spoke of his researches in Cholera bacteria, showing numerous preparations and illustrations The question of the day is upon Koch's vibro It was based upon a result, found to be universally true, that the Pilze is not to be found in the blood of the cholera patients His researches in Naples, led him to another conclusion, and he must declare after having elaborated his researches in different directions, and after examining nine cholera cases in Naples, that Dr Koch's vibrio, which is found in the intestine, and they are rarely in the peritoneum, and never in the interior of the viscera, can only be considered as of secondary importance It may possibly be one of the first inhabitants of the human digestive structure, of which only a few have been recognized Perhaps it only developes under certain conditions of the cholera process The lecturer placed great emphasis upon the results of his studies in Naples Further researches have confirmed these results, and brought new and important facts to light, von Sehlen and Hans Buchner joined him in these investigations The first question which suggests itself Does the Pilze which is derived from cholera exist as a pure body in the blood and organs, or is it a mixture of several fungi The first is of great pathogenic importance, if the second be true, it would render the importance of the first doubtful The results of the Naples investigations were that in the kidneys, spleen, mesenteric glands, brain and blood of the nine cholera cases, the same Pilze as pure culture were found And for the time being, we will call these "Neapolitan cholera bacteria" The microscope showed that the colonies from all these cases were similar Another strong proof of the presence of pure culture of the Neapolitan bacteria, in the organs of the cholera victims is afforded by an examination of the section method developed recently by v Sehlen In such sections examined from Naples and India, these bacteria were found in such abundance and were so widely distributed, that death must have resulted from their presence The Neapolitan cholera-bacteria can be considered as the oldest 11, had never miscarried, first seen on December 4, 1884, when she was in severe labor pains She thought that she was not pregnant, menstruation was absent in the previous April and May, but had returned in June When seen there was a grumous, bad smelling discharge from the uterus The abdomen had not increased in size since the end of the third month The patient was emaciated, and the abdominal walls were sunken The tumor found was as large as a child's head and as hard as a rock, and was presumed to be due to some disease of the placenta On examination, the cervix was found to be dilated, and a large fleshy mass presenting, but no fœtus The mass was expelled an hour later The placenta was as large as at full term Numerous varicose veins were found The patient stoutly denied any attempt at abortion

Dr Schoolfield also reported a case of

HYDATIDIFORM MOLE

Mrs S——, a robust German, æt 51, menstruated last in December, 1883, previous to which time menstruation was regular She was first seen on April 7 1885 The patient felt quite well, with the exception of a sense of weight in the lower part of the abdomen, and dragging pains She was a woman of full habit Examination showed the presence of some hæmorrhage Dr Schoolfield thought that it was a case of mucous polypus A sponge tent was introduced, and a dose of ergot given, this was soon followed by the expulsion of a hydatidiform mole The hæmorrhage ceased, and the patient made a perfect recovery The points of special interest are the age of the patient and the length of time during which the mole was retained—sixteen months

Dr G S Mitchell thought the subject of moles quite as interesting to the general practitioner as the specialist, as we are all likely to meet with them at some time Hydatidiform moles are comparatively rare As regards the etiology, he believed that age has more to do with it than the number of children which the woman has borne Hydatidiform moles are believed to be due to a degeneration of the chorion and villi, certainly the affection cannot arise unless the patient be pregnant, and he claimed that it cannot originate after the end of the third month of pregnancy It usually occurs in women of the cancerous or syphilitic cachexia, and is likely to recur Cazeaux, in the last edition of his work, reports a case in which a healthy fœtus was found alongside of a hydatidiform mole As regards treatment, he thought it better to wait if possible, but if labor pains and hæmorrhage occur, immediate action should be taken

Dr J T Whitacre thought it rather remarkable that two such unique cases should be reported at one meeting of the Academy There is danger of sepsis if the mole be not removed He remembered a case in which a mole remained undiscovered by the attending physicians for six months, and sepsis occurred The mole was then discovered and removed, and the patient recovered Eight or ten cases have been reported in which a mole has been found with a child in the uterus also

FOREIGN CORRESPONDENCE

LETTER FROM BERLIN

(FROM OUR OWN CORRESPONDENT)

CHOLERA NOTES

It is said that in view of the report of the English cholera commission, Koch will shortly leave for India, to investigate further into the vital questions at issue In addition to Johne, Buchner (*Munch Artzl Intell* 1885, 449) also finds such a difference between Koch's and the Finkler-Prior organisms that it is impossible to confound the two This is especially true of the bacillus when under culture Koch's culture makes but a slender thread strand, in the gelatine, with ruffled edges, the Finkler Prior, on the other hand, is quite fat and bulbous

Doyen (Soc Biol Dec 13, 1884) reports many forms of bacteria, in cases of cholera, which he has *observed under culture* and *microscopically* But his report is faulty, his experiments negative, and his conclusions illogical His cholera bacilli were probably the results of decomposition Villiers (Comptes Rendus, 1885, 91) has found a ptomaine in the bodies of two persons, who died of cholera It was in excess in the intestines, and in less quality in the heart's blood, liver and kidneys It is a liquid with an acid taste It is alkaline, with an active base set free by the alkaline Iodide of mercury and of potassium give a white precipitate with its solutions and those of its salts Picric acid gives a yellow, and chloride of gold a yellowish white precipitate Concentrated solutions give a white precipitate with tannin and bichloride of mercury, but chloride of platinum and bichromate of potash give no precipitate Ferro cyanide and perchloride of iron give a very slight and slowly appearing precipitate Sulphuric acid placed in contact with the alkaloid gives a very faint and quickly disappearing violet color The chlorhydrate of the alkaloid is neutral to litmus paper It crystallizes in long fine transparent needles which are exceedingly deliquescent Then follow certain physiological experiments limited in number by the small quantity of the alkoloid at command The effects produced were a remarkable variation of the pulse-beat, contractions of the limbs, anorexia, and death in four days of the animal experimented upon (rabbit) It is to be regretted that Villiers did not examine the body of the dead rabbit to find out if the ptomaine had been reproduced The author proposes to examine into the production of these poisons (ptomaines) in other acute diseases, especially typhoid fever If he can show that these diseases terminate by the formation of ptomaines, he thinks it may be possible to administer antidotes continuously, until the cause has disappeared In cholera, the iodide of starch or iodine-water, would form an insoluble compound with the alkaloid Pouchet (Comptes Rendus, 1885, 220) gives a further account of this alkaloid, and the way in which he himself was poisoned by it in its preparation Pettenkofer (*Deutsch med Wochensch*, 1885), offered to produce a gastro intestinal catarrh in himself, and then to swallow any reasonable amount of a pure culture of the cholera bacillus

In a late number of the *Westminster Review*, Dr. John Chapman advances the theory that cholera is essentially a nervous disease, which is non-contagious, and springs from a vitiated or impaired condition of the sympathic system. The article is exceedingly ingenious, well written and graceful, but absolutely valueless in a scientific view, since it regards intercurrent phenomena, as a *primary* cause, and cites as proof the exaggeration of nervous detail which always obtains in cholera epidemics, forgetting that these physic panics, depending upon an "expectant attention" directed into depressing channels of thought, that these fanatical superstitious and hallucinations are not themselves causes of the disease, but are rather engendered by *fear* of the disease. The system thus weakened is an admirable field for the implantation of the germ. Dr. Chapman's theory is about on a plane with that which sees a mere disturbed nervous condition in hydrophobia, which the patient creates in himself. At a discussion in the Munich Medical Society, von Pettenkofer, in referring to the book of Dr. James Cunningham (Cholera, What can the State do to prevent it? Calcutta, 1884), said that the author was for thirty-three years an active medical officer and physician in India, that for twenty years he had been the head of the medical department there. He was vigorously opposed to a belief in the *contagiousness* of cholera and its practical consequences. Cunningham proves conclusively that quarantines inspection, blockades, and isolation of persons suffering with cholera, disinfection of the excrement, etc., have been shown to be of no purpose. Neither in place nor in time has the development of the railroad system in India fostered or intensified the epidemic. During the epidemics, the cholera spread in directions where there were no railroads whatever, and often in directly opposite directions. The breaking out of cholera among pilgrims in different places has no influence upon spreading the disease. For example, in the year 1867 and 1879, three pilgrims (attacked with cholera, many of them dying before they returned home) spread themselves all over India. The epidemic followed a certain well defined course. Quarantines were not advised by the Indian Government, because it had been previously shown that they were of no service and entailed many disadvantages. According to experience in India, cholera epidemics are never caused by drinking water. The drinking water theory contradicts the complete history of the cholera in India. The only preventive measures of value are *cleanliness*, good *sewerage*, *pure water*, and *fresh supplies*. The local danger, and not its contagiousness, was the only thing to be feared. V. Pettenkofer gave many statistical tables showing the epidemics in Prussia in 1848—1860, as well as in Saxony and Bavaria. The fact was developed from these tables, that certain months, (especially April), favored the disease. Then this "seasonal" regularity is incompatible with the idea that the disease, if transferred from the diseased to the healthy, as the case most undoubtedly with syphilis (for example). The speaker concluded by asking the question "What would happen if the Government regulations were to be based upon Cunningham's views?" He reminded the society of the first cholera epidemic in Europe. After Prussia had spent much money upon plans based upon the theory of contagion, and after the "wild measures of Dr. Rust," and after much misery had been caused among the people, many forsook their original belief in contagion and accepted Cunningham's views, that the intercourse of men had nothing to do with the spreading of cholera, and that the disease developed out of the "Genius Epidemicus." The Kingdom of Bavaria made an antagonistic experiment which, to the speaker, seemed to be of much more value, than those now being made upon animals. The cholera was officially declared to be non contagious, and when the statistics of these cities which had accepted the view of contagiousness, were compared, the results were largely in favor of Bavaria. The lecturer closed with the *cæterum censeo*, that the Government should refrain from wasting millions upon developing a theory of contagion. That it should keep trade open, and that appropriations should be expended upon sanitary improvements, and not upon useless cordons and quarantines.

Dr. Emmerich then spoke of his researches in Cholera bacteria, showing numerous preparations and illustrations. The question of the day is upon Koch's vibro. It was based upon a result, found to be universally true, that the Pilze is not to be found in the blood of the cholera patients. His researches in Naples, led him to another conclusion, and he must declare after having elaborated his researches in different directions, and after examining nine cholera cases in Naples, that Dr. Koch's vibrio, which is found in the intestine, and they are rarely in the peritoneum, and never in the interior of the viscera, can only be considered as of secondary importance. It may possibly be one of the first inhabitants of the human digestive structure, of which only a few have been recognized. Perhaps it only developes under certain conditions of the cholera process. The lecturer placed great emphasis upon the results of his studies in Naples. Further researches have confirmed these results, and brought new and important facts to light, von Sehlen and Hans Buchner joined him in these investigations. The first question which suggests itself: Does the Pilze which is derived from cholera exist as a pure body in the blood and organs, or is it a mixture of several fungi. The first is of great pathogenic importance, if the second be true, it would render the importance of the first doubtful. The results of the Naples investigations were that in the kidneys, spleen, mesenteric glands, brain and blood of the nine cholera cases, the same Pilze as pure culture were found. And for the time being, we will call these "Neapolitan cholera bacteria." The microscope showed that the colonies from all these cases were similar. Another strong proof of the presence of pure culture of the Neapolitan bacteria, in the organs of the cholera victims is afforded by an examination of the section method developed recently by v. Sehlen. In such sections examined from Naples and India, these bacteria were found in such abundance and were so widely distributed, that death must have resulted from their presence. The Neapolitan cholera-bacteria can be considered as the cause of typhus. Now how is it possible that other investigators should have overlooked these bacteria? Koch, however, wrote from Egypt (before the "comma-bacillus" was known, this being first reported from India) that the bacteria which he found in the intestinal wall at the time were undoubtedly the primary cause. The French committee also found their bacteria almost constantly in the intestinal wall and in testines. As to the biological conditions of the Neapolitan cholera bacteria, according to Buchner, it approaches nearest to the typhus bacillus. It can stand twelve days freezing at a temperature of 24° Celsius, and four weeks drying in a room at living temperature without detriment.

The Madrid papers are full of the immunity from cholera afforded by vaccination, demonstrated by the experiments of a young Catalonian doctor, Jaime Ferran. For some years, by his industry and original studies in Tortosa, he had attracted attention. The Royal Academy of Medicine, in Madrid, distinguished him among its honorable fellows. He was sent to Toulon and Marseilles to study with Germans, French and Italians the epidemic of cholera, and to investigate Koch's theory. Returning to Spain, he continued his investigations, and found that Koch's theory was only partially correct. He discovered that when the comma bacilli were mixed with animal gall, or with the secretions of the human stomach, little eggs were deposited, and these he takes to be the actual cause of cholera. He then commenced his experiments with vaccination, using the forearm—sometimes both forearms. He so vaccinated himself, several other doctors, and many friends. After four or five hours the fever rose, the pulse being 114 120, the temperature 40 C. The patient complained of being weak and feeling badly, lost appetite, vomited had cramps, and could not sleep. In forty-eight hours all symptoms disappeared. Vaccination among children, even up to 8 cc of the *materies morbi*, proved to be without danger. The Royal Academy has appointed a commission to investigate Dr. Ferran's experiments.

H. K. B.

PARIS LETTER

Prescription Writing—Iodine Injections in Hydrocele—Administration of Iron, Quinine, the Bromides, and Opium—Relations between Syphilis and Aneurism

However superfluous it may seem, to expatiate on the importance of writing out prescriptions properly, I cannot refrain from adding a few more particulars to my last communication on the subject. As regards the time that should be chosen for the administration of a drug, Professor Germain See considers it of more importance than would at first sight appear. For example, if a purgative pill were to be given on an empty stomach, the patient will almost certainly vomit it, as it will not meet with its dissolvent in the stomach, that a resinous substance, of which most pills are composed, requires an alkaline medium to dissolve it, and this is found at the commencement of the small intestines. Iron should be taken at meals, as all preparations of that metal, whatever be their form, are precipitated at the commencement of digestion, and find in the gastric juice the elements necessary for their re-solution. The bromide of potassium and opium take a certain time to act, and if consulted by a patient for insomnia caused by prolonged head work, the bromide of potassium should be administered in two doses, at 4 o'clock in the afternoon and at 8 in the evening, for if he took only one large dose at 9 in the evening, as is frequently prescribed, he will commence to sleep only in the morning just at the time when he may require to attend to his occupations. For a patient that is annoyed with a troublesome cough at night, and if the physician thinks proper to prescribe an opiate, it should be given in two or three doses, beginning at 2 o'clock in the afternoon, for if taken between 3 and 10 at night the patient will be relieved only the next morning. The hour of administration of the sulphate of quinine should be fixed according to the time necessary for the drug to produce the totality of its antipyretic effect, which commences to manifest itself about four or five hours after its ingestion, but it is completed only in 8 or 9 hours and its maximum effect is maintained for nearly 15 hours after its administration. For this reason Liebermeister recommends, in typhoid fever, that the quinine should always be given in doses of 1 to 2 grammes at 5 o'clock in the evening, and in one single dose, to act on the remission that usually takes place, in the morning. This precept, however, is considered *too exclusive, as there are cases in which it would be* more urgent to lower the vesperal temperature. Professor Sée has therefore modified Liebermeister's practice, and prescribes 1 gramme of the sulphate of quinine at 6 o'clock in the morning to act on the temperature of the evening, another gramme is given at 5 or 6 in the evening to lower the temperature of the next morning. As regards the administration of salicylic acid, or any of its preparations, as an antipyretic in the treatment of typhoid fever, Professor See is opposed to it, owing to the complications which are generally met with alcoholism, delirium and cerebral accidents, renal affections, weakness of the heart, all which being, therefore, positive contraindications in the treatment of typhoid fever by the salicylates.

Posology should also be properly attended to, and the doses of drugs should be varied and graduated according to age, and according to the effects of each remedy, which experience alone can indicate. The administration of opium to children requires great discrimination, and although Trousseau proscribed it altogether from his infantile practice, Professor See considers that in very minute doses, almost homœopathic, it may be safely given to children.

The sulphate of quinine and the salicylate of soda are, on the contrary, well borne by young children. In certain cases M. See would administer as much as 20 centigrammes of quinine to a child over two years of age, and, following the example of Dr. Archambault, he prescribes 4 grammes, and sometimes over 5 or 6 grammes, for articular rheumatism in young children, and in this way cuts short the disease in a few hours.

Dr. Tillaux, Surgeon to the Hôtel Dieu, lately delivered a clinical lecture on the dangers of repeated injections of tincture of iodine in hydrocele, which he exemplified in the following case. A man, æt. 60, who had been suffering from hydrocele for two years, and who had been treated by injections of tincture of iodine. The first injection having produced no apparent effect, a second one was made a fortnight later, and the operation was followed by an abundant extravasion of blood into the cavity of the tunica vaginalis. Commenting on this accident, Dr. Tillaux stated that, in case of failure at a first attempt, the injection must not be repeated before six or eight weeks have elapsed. When the second injection is made too soon, hæmatocele is likely to occur in consequence of the formation of vascular pseudo-membranes.

Dr. Tillaux also pointed out the danger of the injection of tincture of iodine or any other irritating liquid in hydrocele in children and recommended instead the application of a lotion of the chloride of ammonium, with support to the parts.

In his thesis for the doctorate, Dr. Verdier chose for his subject, "The Relations between Syphilis and Aneurism," in which the author has come to the following conclusions. Syphilis is a frequent cause of various arterial lesions, which may be followed by a dilatation of the vessels. On an average, aneurisms appear about eleven years after the onset of the disease. Iodide of potassium, he states, is useful, but a complete cure is a rare occurrence, and the disease is often fatal. A. B.

DOMESTIC CORRESPONDENCE

NEW YORK LETTER

(FROM OUR OWN CORRESPONDENT.)

Opening of the Carnegie Laboratory—New York State Medical Association, Meeting of Fifth District Branch—Ligation of the external Carotid—Section on Practice of Medicine of the New York Academy of Medicine—Acute Peritonitis.

This has been a week of special interest and activity in the medical society world. On Monday evening, the New York County Association held its first meeting at the new Carnegie Laboratory, which had been opened for the inspection of the profession on May 14, from 8 to 10 P. M., when the directors and assistants exhibited pathological specimens, as well as bacteria, and the processes of their cultivation. There were no formal exercises on this occasion, but at the meeting mentioned, the principal paper of the evening was by Prof. E. G. Janeway, who spoke of the laboratory as follows in the opening of his address.

"Having been invited by your President to read a short paper this evening, I have chosen the subject of 'The Advance in our Knowledge of the Etiology of Disease,' because of some of the circumstances attending the present occasion. The Association meets to-night in a building which is to be devoted to the study of the anatomy and etiology of disease. That it is admirably adapted for the purpose I think all will admit. No greater inducement to study exists than that innate desire for knowledge, which can best be compared to the hunger for food which seizes upon the starving, a desire which will not know fatigue or care for surroundings, provided that in any way it may attain the object of its quest. But oftentimes those well adapted for research and investigation have been absolutly unable to succeed from the want of the necessary means, appliances, and place for such work. The German government has been very far-seeing in this matter, and has subsidized the study of disease—to use the term in its scientific sense—by erecting laboratories, endowing professorships, and paying the expense of the work done in studying pathological anatomy, as well as of experimental investigation. The result of this course is, no doubt, familiar to you all. Germany has taken the lead in this matter, and students from all parts of the world have flocked to her institutions of study. One cause for their success has often been lost sight of, but the mere mention will no doubt, suffice to show how others are handicapped in the race. Anyone in this country, unless possessing a private fortune, must give up a large share of his time and thought to acquiring the means of subsistance and for the apparatus and other expenses of his work, and this must be either by teaching or practice. He is thus subject to interruptions, and is obliged to work at scientific subjects, not when fresh and vigorous, but when weary and jaded and hitherto, too often in places little adapted to encourage work under such advantages. But, thanks to the liberality of the gentleman whose name this building, in which we are met bears, one of the great obstacles to successful labor has been overcome, and we trust that he may never have occassion to regret his gift, but may, on the other hand, live to see the fruition of his hopes."

Later in the evening Dr. H. M. Biggs, who has recently returned from Germany, gave a demonstration of the three comma bacilli: the mouth comma of Lewis and Miller, the cholera-nostras comma of Finkler and Prior, and the Asiatic-cholera comma of Koch.

On the following day, May the 19, the second scientific meeting of the Fifth Branch of the New York State Medical Association was held at Poughkeepsie, where a number of interesting papers were read. The first was a surgical paper of great value by Dr. Joseph D. Bryant, Professor of Anatomy at the Bellevue Hospital Medical College, and Surgeon General of the State. It was on three cases of ligation of the external carotid, in two of which both vessels were tied simultaneously. The first was for the cure of an aneurismal tumor in front of the left ear, and the other two for the starvation of malignant growths, and the conclusions which Prof. Bryant derived from these were as follows: 1st. That ligation of the external carotid artery, with independent ligation of its branches arising from the first inch of its trunk is a safe and commendable operation, 2d. That when the facial and lingual arteries do not arise singly, or by a common trunk from the first inch of its course, the branches arising at the bifurcation should be tied; 3d. That a simultaneous ligation of the external carotids is a rational preparatory measure to operations involving the parts supplied by their branches, where dangerous hemorrhage is found; 4th. That simultaneous ligation is advisable to diminish the rapidity of the development of extensive malignant growths when nourished by the branches of the external carotids; 5th. That the ligation of one or both external carotids for the cure of aneurismal formations of the branches of the same is not warranted as an independent measure; 6th. That ligation of the common carotid should not be done for the cure or for the arrest of morbid conditions involving the external carotid with its branches, except as a final resort.

The other papers read were "Hypertrophy of the Prostate Gland," by Dr. J. G. Porteous, of Poughkeepsie, (who presided in the absence of the President Dr. J. C. Hutchinson, of Brooklyn), "Diphtheria and Its Treatment by Calomel," by Dr. S. J. Murray, of Brooklyn, "Treatment of Cerebral Hemorrhage and Embolism by the Internal use of Carbonate of Ammonia," by Dr. R. C. Van Wyck, of Dutchess county, and "Report of a case of Rheumatic Metastasis to the Brain ending Fatally," by Dr. C. S. Wood, of New York.

The same evening the first regular meeting of the recently reorganized Section on the Practice of Medicine of the Academy of Indiana was held, when Dr. Andrew H. Smith read a paper on "The Irregular Manifestations of Malaria," after the discussion of which there was a general discussion on "The Sources of Infection and Limits, as to time of Infection of Scarlet Fever and Measles." Dr. Alfred L. Loomis is Chairman, and Dr. E. Darwin Hudson, Jr., Secretary, of the Section.

At the meeting of the Academy on Thursday evening, May 21, Dr. T. H. Burchard read a paper with the title, "Observations on the Treatment, Medical and Surgical, of Acute Peritonitis," in which he claimed that the mortality from this the most fatal of all acute inflammatory diseases, was unnecessarily high. A knowledge of the cause in any case was essential to its satisfactory treatment. Everything pointed to the fact that there was no such disease *per se* as peritonitis, the so called idiopathic cases not being of this character in reality. He then alluded to the alleged difficulties of diagnosis, and stated that a correct diagnosis was possible even when the difficulties were apparently very great, in proof of which he cited several instances which had occured in his own experience. Sound surgical teachings demanded that it should by all means endeavor to remove the source of irritation, whatever it might be, and the earlier this was done, as a rule, the better. In these very halls, he said Dr. Sims in the last paper which he ever read before the Academy had sounded the key-note of the correct treatment. The peritonæum was exceedingly tolerant of surgical interference if proper precautions were taken, as had been demonstrated in the large number of Tait's operations which had been performed during the last two or three years. Tait himself had performed no less than forty laparotomies during commencing peritonitis, and without a single fatal case. He then quoted a large number of cases of operations from various sources, and completed the list with the report of a case of his own. This was one of omental abscess which he saw at Saratoga, in consultation with the late Dr. F. D. Lente, shortly before his death, and in which he performed laparotomy with a favorable result. Although distinct fluctuations could not be obtained, the aspirator was resorted to, but failed to withdraw any pus. An incision was then made in the median line from one inch below the ensiform cartilage to the umbilicus, with antiseptic precautions. Fully a gallon of warm carbolized water was injected among the matted intestines, and, iodoform having been dusted lightly over the walls of the abscess, two drainage tubes were placed in position.

This case, with the others by diffierent operators which he had collected, made forty cases in all, with twenty-four recoveries, or 60 per cent of recoveries in otherwise hopeless cases. By way of contrast, Dr. Burchard reported a fatal case of ulceration of the vermiform appendix. He was called to see the patient in consultation, and having made the diagnosis of perforation, he advised immediate operation. At this time the condition of the patient was comparatively good, and the operation was refused. Twenty-four hours afterward, however, he was again called in, and was now urged to operate, but by this time it was too late (the condition being hopeless), and a fatal result rapidly ensued.

In speaking of the medical treatment, he said that while opium had been rightly considered our sheet-anchor in this disease, yet there were certain conditions in which it was requisite to use it with very great caution. One of them was the state of initial collapse, a subject which had been too little studied, but which was one of much importance. As this collapse was dependent on a vaso-motor paresis, large doses of opium were likely to prove extremely dangerous, though in small quantities the drug might be used with advantage. In this connection atropia was the efficient agent that could be employed, and whenever there was danger of cardiac or respiratory failure, he thought that the morphia should be used in combination with atropia, ammonia, digitalis or alcohol. He urged the hypodermic method of using morphia as the most accurate and satisfactory, and recommended the iced coil as by far the best local application.

P. B. P.

THE MANAGEMENT OF SHOULDER PRESENTATIONS

Editor Journal American Medical Association:

Dear Sir:—Dr. E. F. Wells, of Minster, Ohio, reported a "Case of Shoulder Presentation" in the Journal of April 11th. I was much interested in his report, having reported three typical cases in the *American Journal of Obstetrics* in 1881, under the title of "Genu Pectoral Position as an Aid to the Rectification of Malpresentations of the Fœtus."

I wrote to Dr. Wells asking the source of his authority for calling it "an old and long-forgotten position," and I enclose his reply. The practicability of the position is, however, the main point to be dis cussed. My cases were cross positions—shoulder and one hand protruding through vulva. Since that time I have corrected several malpositions by this method; it is more easy than podalic version, and without the risk to the child.

Dr. Wells' case is not overdrawn. In my case of arm presentation, simple pressure upon the head and hip of the child, externally, carried the arm within the uterus without direct vaginal manipulation. Ordinary skill will correct any malposition, the woman being in the knee-face position.

Very truly yours,
C. N. Fowler, M. D.
Youngstown, O., May 22, 1885.

C. N. Fowler, M. D., Youngstown, Ohio.

Dear Doctor.—Yours of the 12th came to hand yesterday, and in reply will state that I came upon the device referred to by accident, thought the idea original, and published it for the purpose of drawing attention to the subject. I am glad to know that I have been preceded in this field by you, and that you have called my attention to the fact. Although engaged in general practice, I make no attempt to keep up with obstetrical literature—being especially interested in other lines—and this accounts for my ignorance of the existence of your paper. I have, however, read most of the modern obstetrical works, and have a large number of volumes of journals issued during the past forty years, all thoroughly indexed, and in but one of these can I find mention of the genu-pectoral position in the rectification of the fœtal position, but in this instance the reference is such as to have led me to think that there was nothing *new* in the position, although the reasons undoubtedly are. If you will turn to page 264 of the 3d edition of Dewees' Midwifery, you will find this sentence, under the heading of "The Position of the Woman for Turning." "Some recommended the side, *others the knees*, and others the back." It is true that here, and at page 506, he distinctly says that he does not prefer this position, yet his words convey the impression that in his day some made use of this position. I imagine, however, that the identical proceeding through which we have gone has been gone through by others—unrecorded experience—because prolapsus of the cord is of rather frequent occurrence in shoulder cases, and may come on early, before the presentation has been fully made out. In this case almost any accoucher would place the woman in this position for the purpose of replacing the cord, and in doing this he must be rather a dull man if he does not take the hint which Nature gives him.

I believe this subject to be one of prime importance, and that it cannot be discussed too freely. Would it not be well for you to drop a note to the editor of the Journal, criticising my claim that this knee chest position is "old," and calling attention to your article in the *American Journal of Obstetrics*? The correspondence might bring out many points of historic interest. Very respectfully,

E. F. Wells, M. D.
Minster, O., April 16, 1885.

BOOK REVIEWS

A Guide to the Diseases of Children. By James Frederick Goodhart, M. D., F. R. C. P., Assistant Physician to Guy's Hospital, and Lecturer on Pathology in its Medical School; Physician to the Evelina Hospital for Sick Children. Revised and Edited by Louis Starr, M. D., Clinical Professor of diseases of Children in the Hospital of the University of Pennsylvania, Physician to the Children's Hospital, Philadelphia, with Formulæ. 8vo., pp. 738. Philadelphia: P. Blakiston, Son & Co., 1885. Chicago: W. T. Keener.

"As regards the scope of the work—in writing a book upon the diseases of Children, I have not considered it my function to write one on general medicine, but so far as possible, I have kept in view the diseases which seemed to be incidental to childhood or such points in disease as appear to be so peculiar to or pronounced in, children as to justify insistence upon them; and if the book meets the want it aims to supply, it will be due, I think, as much to its omissions as to its contents." This quotation from the author's preface gives a clear idea of the scope of the book; it deals essentially with disease as seen in childhood. In describing pneumonia and bronchitis the details as to the physical signs, which every person who reads the book should know, are omitted. In the same manner it will be found that unnecessary details are omitted throughout the whole work. At the same time nothing that concerns disease as found in childhood seems to have escaped the author's attention. From introduction to the end it is replete with valuable information, and one reads it with the feeling that Dr. Goodhart is writing of what he has seen at the bedside. It need scarcely be added that the revisions and additions by the American editor are of much value, neither too full nor too spare, and very judicious.

A Treatise on Amputations of the Extremities and their Complications. By B. A. Watson, A. M., M. D., Surgeon to the Jersey City Charity Hospital, to St. Francis's and to Christ's Hospital at Jersey, etc., etc. Illustrated by upwards of 250 engravings, and two full-page plates. 8vo., pp. xix, 762. Philadelphia: P. Blakiston, Son & Co., 1885. Chicago: W. T. Keener.

A notice of this work must necessarily be very short or very long. In making a short notice of it the reviewer must content himself with saying that it stands alone in surgical literature as a work in which everything connected with the subject has been brought out, and dwelt upon at the necessary length, in which there is no unnecessary work of detail, and no omission of important fact; in which the facts are stated clearly and distinctly, and just conclusions drawn from them; and which shows that the whole literature of the subject has been carefully worked. To notice it more fully would involve the use of more space than can be given in any other than a very much larger journal. It is a book to be studied rather than read. It was very graceful in the author's to dedicate it to that master of modern surgery, Sir Joseph Lister With the exception of a very few of the many cuts, the publishers have done their work in the most creditable manner A good index completes the book

MISCELLANEOUS

Vaccination with Yellow Fever Virus—The *Med Record*, of May 30, gives the following from the city of Mexico The Government of Mexico has permitted the garrison of Vera Cruz to be vaccinated with yellow fever virus, according to Dr Carmona's system Experiments were first made on prisoners who volunteered for the purpose Persons vaccinated with the virus have all the premonitory symptoms of the fever It is thought that the inoculation will serve as a complete protection for four or five years Great interest is felt in the discovery, and the system will be tried on the west coast and in Sonora

The British Gynæcological Society—At the first *conversazione* of this society, given on May 12, it was stated that more than three hundred members had already added their names to the list

Professor Budin—The *British Medical Journal*, of May 6, states that on May 6 Mr Lawson Tait performed laparotomy and hepatotomy, at Nice, on Professor Budin, of the Faculty of Paris, who has been ill for some two years His symptoms pointed, from the first, to some abnormal condition of the liver, though the precise nature of trouble remained obscure About the first of May a consultation was held between Professors Tarnier, Brouardel and Bouchardat, and Drs Bar and Thaon, when it was decided that laparotomy should be performed, and Mr Tait was asked to go to Nice to do the operation On cutting into the liver he found a tumor containing a large mass of hydatids, which he successfully removed A drainage tube was left in the wound Since the operation Professor Budin has made an uninterrupted recovery

The University of the City of New York—The Chair of Anatomy, made vacant by the death of Professor Darling, has been filled by the appointment of Dr Lewis A Stimson

The Plymouth Epidemic—Through the enterprise of the *Sanitary News*, specimens of the water from the plague smitten district of Pennsylvania have been examined by Prof R C Kedzie, of Lansing, Michigan His report states that "when the jug was opened that contained the well water, an offensive odor was distinctly perceptible On igniting the residue from this water, there was a strong offensive odor Both of these waters are bad—unfit for potable and culinary use The well water is *simply horrible*! I have examined many bad waters, but never found one so utterly unfit for use It belongs to the dungheap rather than the dinner pot It swarms with the low forms of life in countless numbers The examination of this water awakens surprise, not that many are sick in Plymouth, but that any should be well"

Medical Society Meetings—The Medical Society of New Jersey, will hold its annual meeting at Long Branch, on June 9th and 10th The Oregon Medical Society meets at Portland on the same dates The Minnesota State Medical Association will meet at St Paul on June 18

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OF SAVANNAH, GEORGIA

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From the history of this case, it became evident that a constitutional antiseptic of considerable power must be found, which would prevent the development of the diphtheritic poison and preserve the nerve centers from its destructive influence It has been found that the most powerful antiseptic and germicide was biniodide of mercury, as will be seen from the following table of Dr S Miguel It gives the weight in grammes of each of these microbicides capable of rendering imputrescible one litre of beef tea

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Iodide of silver		0 03
Oxygenated water		0 05
Bichloride of Mercury		0 07
Nitrate of silver		0 08
Osmic acid		0 15
Chromic acid		0 20
Iodine		0 25
Chlorine		0 25
Hydrocyanic acid		0 40
Bromine		0 60
Chloroform		0 80
Sulphate of copper		0 90
Salicylic acid		1 00
Benzoic acid		1 10
Chromate of potassium		1 30
Picric acid		1 30
Ammoniacal gas		1 40
Thymic acid		2 00
Chlorides of lead, cobalt and nickel		2 10
Mineral acids	2 00 to	3 00
Binitrobenzine		2 60
Essence of bitter almonds		3 00
Carbolic acid		3 20
Permanganate of potassium		3 50
Aniline		4 00
Divers alums		4 50
Tannin		4 80
Sulphydrate of sodium		5 00
Arsenious acid		6 00
Boric acid		7 00
Hydrate of chloride		9 50
Salicylate of soda		10 00
Sulphate of the protoxide of iron		11 00
Amylic alcohol		14 00
Sulphuric ether		22 00
Butylic alcohol		35 00
Propylic alcohol		60 00
Borate of soda (borax)		70 00
Ethylic alcohol		95 00
Sulphocyanide of potassium		120 00
Iodide of potassium		140 00
Prussiate of potash		185 00
Glycerine		225 00
Urea (natural)		260 00
Hyposulphite of soda		275 00
Chlorate of soda		400 00

"Most of these substances act by paralyzing the evolution of the microbic germs, and by destroying the adult bacteria, but they have no effect on the to dedicate it to that master of modern surgery, Sir Joseph Lister With the exception of a very few of the many cuts, the publishers have done their work in the most creditable manner A good index completes the book

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[1] Read in the Section of Practical Medicine Materia Medica and Physiology at the Thirty Sixth Annual Meeting of the American Medical Association

MISCELLANEOUS

Vaccination with Yellow Fever Virus —The *Med Record*, of May 30, gives the following from the city of Mexico The Government of Mexico has permitted the garrison of Vera Cruz to be vaccinated with yellow fever virus, according to Dr Carmona's system Experiments were first made on prisoners who volunteered for the purpose Persons vaccinated with the virus have all the premonitory symptoms of the fever It is thought that the inoculation will serve as a complete protection for four or five years Great interest is felt in the discovery, and the system will be tried on the west coast and in Sonora

The British Gynæcological Society —At the first *conversazione* of this society, given on May 12, it was stated that more than three hundred members had already added their names to the list

Professor Budin—The *British Medical Journal*, of May 6, states that on May 6 Mr Lawson Tait performed laparotomy and hepatotomy, at Nice, on Professor Budin, of the Faculty of Paris, who has been ill for some two years His symptoms pointed, from the first, to some abnormal condition of the liver, though the precise nature of trouble remained obscure About the first of May a consultation was held between Professors Tarnier, Brouardel and Bouchardat, and Drs Bar and Thaon, when it was decided that laparotomy should be performed, and Mr Tait was asked to go to Nice to do the operation On cutting into the liver he found a tumor containing a large mass of hydatids, which he successfully removed A drainage tube was left in the wound Since the operation Professor Budin has made an uninterrupted recovery

The University of the City of New York —The Chair of Anatomy, made vacant by the death of Professor Darling, has been filled by the appointment of Dr Lewis A Stimson

The Plymouth Epidemic —Through the enterprise of the *Sanitary News*, specimens of the water from the plague-smitten district of Pennsylvania have been examined by Prof R C Kedzie, of Lansing, Michigan His report states that "when the jug was opened that contained the well water, an offensive odor was distinctly perceptible On igniting the residue from this water, there was a strong offensive odor Both of these waters are bad—unfit for potable and culinary use The well-water is *simply horrible!* I have examined many bad waters, but never found one so utterly unfit for use It belongs to the dungheap rather than the dinner-pot It swarms with the low forms of life in countless numbers The examination of this water awakens surprise, not that many are sick in Plymouth, but that any should be well"

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"Most of these substances act by paralyzing the evolution of the microbic *germs*, and by destroying the adult bacteria, but they have no effect on the germs of the bacteria. Certain substances, however, have by their chemical action the power of completely destroying the germs of the bacteria, and to this class Dr. Miguel has applied the term 'sporicides.' The principal among them, are the preparations of mercury, and the salts of silver, which in a solution of 1:10,000 destroy the germs of microbes as surely as a dry temperature of 150° C. (302° in a few days F.) prolonged during several hours. Iodine, chlorine and bromine, and the mineral acids come next, but the microbicide *par excellence* is heat, which raised to 110 C. (130° F.) for liquids, and to above 150° C. (302° F.) for solids, has been found sufficient to effectually destroy the germs of the microbes."

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That a large quantity of a powerful germicide is not necessarily required to attain the object in view, is admirably proved by the following extract from a forgotten source:

"The cultivation of micro-organisms which is now everywhere carried on, enables us to realize the smallness of the change, which in many cases suffices to convert a highly nutritive liquid into one incapable of supporting microscopic life. Various important essays bearing upon this subject have been recently published in the *Revue Scientifique*. M. Boulsy there draws attention to the results obtained by M. Raulin in the cultivation of the microscopic plant named Aspergillus niger. The omission of potash from Raulin's liquid, suffices to make the produce fall to one twenty-fifth of the amount collected when potash is present. The addition of an infinitesimal amount of a substance inimical to the life of a plant is attended with still more striking results. For example, one part in sixteen hundred thousand of nitrate of silver added to the liquid entirely stops the growth of the plant. And now we come to the important application of this fact, which has been indicated by M. Duclaux. Supposing the aspergillus to be a human parasite, a living contagium, capable of self-multiplication in the human blood, and of so altering the constitution of that liquid as to produce death, then the introduction into the blood of a man weighing sixty kilogrammes of five milligrammes of the nitrate of silver would insure, if not the total effacement of this contagium, at all events the neutralization of its power to destroy life."

If then five milligrammes of nitrate of silver would produce this result, it was evident that a much less quantity of biniodide of mercury, which is three times as powerful, would probably answer the same purpose; but another important indication could be fulfilled at the same time—that of thoroughly disinfecting the mouth and fauces by means of a dilute solution of the "sporicide" kept constantly flowing over the mucous membrane. Following these indications, a weak solution of biniodide of mercury (one part to two thousand, one grain to about four ounces) in water was prepared, using iodide of potassium to insure the solution, and also diffusion of the remedy through the system. It was proposed to give of this five or six drops every ten or fifteen minutes, and it was intended that it should be used as a spray to the nostril if such a course became necessary. Experiences had shown that in cases having a thick deposit, some agent was required which would act upon and soften the membrane, preparing it for the solvent power of the peroxide of hydrogen on the one hand, and permitting the more thorough action of the "sporicide" solution on the other. To fulfill this indication, and following a French suggestion, *papayotin* was selected as being a much more powerful digestive agent, although somewhat similar in its apparent action to pepsin, pancreatin, trypsin, etc., and possessing in addition the property no less singular than valuable of acting equally as well in fluids having an acid or an alkaline reaction. The salient points of the treatment adopted are here as foreshadowed:

First. The frequent application to the membrane of the peroxide of hydrogen which will dissolve such portions of it as are soft and flocculent. The spray, with or without the soft camel's hair brush, will be found most useful in using this remedy, which can be applied also to the nasal passages.

Secondly. Having thoroughly cleaned away all the membrane which can thus be got rid of, powdered papayotin is applied to that which remains by means of a powder-blower, after which no food or medicine is given for twenty or thirty minutes, the object being to avoid as much as possible removing the papayotin from the membrane.

Thirdly. After twenty minutes or half an hour, the use of the general germicidal solution, (the solution of the biniodide of mercury having thus far proved itself superior to any other), is resumed in the manner just indicated, that is to say, a few drops administered every ten or fifteen minutes.

This course is pursued until the membrane has disappeared, when the use of the peroxide of hydrogen and of the papayotin is discontinued, but the sporicidal solution is still to be administered, but at more distant intervals, nor should its administration be stopped until all danger of paralysis is passed. The amount of medicine thus administered, is marvelously small when compared with the results obtained, a single grain sufficing for from three days to a week even in the height of the disease. The longest period for which the biniodide was used in any one case was two months, and towards the last of that time but three doses a day were given. Occasionally, when there is evident depravement of the blood, a little syrup of the iodide of iron, proportioned to the age of the patient, has been added to the biniodide solution. Finally, if there is evidence that the disease has developed in the home of the patient, I strongly recommend removal to another house whenever it can be possibly effected.

Effect of iodide of potassium.—There seems to be some probability that iodide of potassium acts specifically, or at least assists in the specific action of the mercurial salt. Although this salt occupies a low position in the scale of germicides, it certainly can exist in the system in quantities quite sufficient to materially modify bacterial development therein. The urine passed by patients who were taking iodide of potassium, and which held the salt in solution as evidenced by chemical reaction has been kept by me for months without undergoing any apparent change, while the urine from the same patients before the administration of the medicine underwent rapid decomposition. A similar condition has been observed to exist during the administration of salicylic acid (*Medical World*, Vol. III. P. 4), which may in some measure account for its value in the treatment of diphtheria.

If now the iodide of potassium, after being administered, can show itself in the urine in sufficient quantity to materially retard bacterial development, it certainly seems highly propable that its presence in the blood must tend to the production of a like result. It is therefore most unlikely that the iodide of potassium is an idle spectator of the germicidal operations of the biniodide of mercury, or simply a carrier of the latter salt, but it is rather present in the double rôle of a vehicle and a germicidal ally. In accordance with this view, the strength of the solution of iodide of potassium used to dissolve the biniodide of mercury should be as great as the comfort of the patient will permit. That the biniodide of mercury is present in the blood is proved by the fact that "during the internal use of the mercurial preparations the urine always contained mercury." (Neubauer and Vogel on the urine, P. 138.) For this reason the urine should be frequently examined, and the presence in it of the iodide of potassium be verified by analysis, thus insuring the permeation of the system by the germicidal salts.

The rapid diffusibility of the iodide of potassium is a great argument in favor of its employment. It is reported to have been detected in the urine six minutes after administration, and according to M. Melseus, the activity of the mercurial salts is greatly heightened by its use. Again, by the constant use of small doses of the iodohydroargyrate solution the elimination by the kidneys is balanced, and a constant stream of the germicide is, as it were, kept flowing through the system. *Theoretically*, the frequent doses of the medicine are demanded to prevent the germination of the bacterial elements of the disease, which may take place at short intervals of time, the exact period being at present unknown. Whether this theory be absolutely correct or not, the plan of administering the medicine, founded upon it works well in practice. Incidentally, I would mention that this remedy acts equally as well in follicular tonsilitis, and in aphthous deposit in various localities. It is worthy of trial wherever there is an abnormal process going on dependent upon bacterial growth.

Alkaline Iodides.—The peculiar action of the iodide of potassium, naturally suggests the substitution for it of some other similar salt, such as the iodide of sodium or the iodide ammonium. Whether any of them would be an improvement upon the iodide of potassium, I am unable at present to say, it is to be hoped, however, that further observations will be made in this direction. The antiseptic powers of bromine would also suggest for its salts a trial.

Results.—Up to the time of this writing, peroxide of hydrogen has been used by me, either alone or combined with other remedies. In fourteen cases of these, three terminated fatally, and eleven recovered without any sequelæ. Of the three fatal cases, one was treated with the peroxide alone, and, although the patient recovered from the direct attack, still the death resulted from the secondary effects of the disease, and should therefore be credited to that malady. A detailed account of this case has been already given.

Case 2.—I was called to see a child about six years of age, which had been ailing with cold in the head, accompanied by an acrid discharge for several weeks, with occasional epistaxis. The appearance of the child was markedly that of blood poisoning. There was low fever from temp. 101, pulse 100, skin dry and sallow, upper lip excoriated from the nasal discharge, angle of the mouth cracked and scabbed, teeth covered with sordes, gums spongy and bleeding easily, tongue dry and black and with a tendency to crack, abdominal symptoms there were none, nor was any membrane visible in nostrils or in the throat. I treated the case for constitutional disturbance, but kept a constant watch for the membrane of diphtheria so as to apply local remedies. In two days a slight membraneous deposit was visible in the left nostril, and in another day, the tonsils were invaded. The treatment herein advanced was now adopted, except that a solution of corrosive sublimate, as recommended by Dr. Geo. G. Lynn, (JOURNAL AMERICAN MEDICAL ASSOCIATION, July 25, 1884, p. 94,) was used instead of that of the biniodide. This was done on the faith of various publications, and the report of personal acqaintances, who were using it in their practice. The treatment was faithfully pursued, but with the dying year my patient passed away, a victim to blood poisoning.

Case 3.—I was called in consultation to see a child about four years old, who had diphtheria about a week and was gradually getting worse under chlorate of potash, tincture of iron, quinine with a spray of lime water and carbolic acid. Peroxide of hydrogen was prescribed in spray, and pepsin blown into the pharynx, our supply of papayotin being exhausted. After a week of anxiety and suffering, death came to the relief of our little patient.

These three are the only fatal cases which have occured in my practice, in which the peroxide of hydrogen has been employed. It will be observed that in none of these cases was the full treatment, with the biniodide of mercury carried out. In the remaining cases, eleven in all, in which the new treatment was employed in its entirety, the results were eminently satisfactory, there not being a fatal case to record. The following is quite a typical case.

Case 4.—On November 15, I was called to see R. C., aged three years, with a marked diphtheritic deposit on both tonsils. The mother of the child said that for six weeks at least, there had been an acrid discharge from the nose with œdema of the nasal mucous membrane and epistaxis. These symptoms were passed by unnoticed, until the appearance of the membrane in the throat. I prescribed peroxide of hydrogen by spray and brush to be used frequently. Next day the membrane could be seen extending downward from the roof upon the back of the pharynx and peeping under the edges of the velum, evidently the posterior nares were involved and probably the whole of the nasal cavity, as evidences of the membrane could be seen in the nostrils. I now ordered ten drops of a solution of biniodide of mercury to be given every ten minutes, and powdered papayotin to be blown into the throat three times a day, and the spray of peroxide of hydrogen to be used every hour It seemed, however, as if the reserve forces of the disease in the inaccessible portions of the posterior nares were to be victorious, for as fast as the membrane was removed by the remedies employed, it was reproduced, even encroaching a little upon the unaffected tissue in the interval between the applications, indeed it did descend to the larynx, and impending suffocation kept me for some days in constant expectation of having to perform tracheotomy, which the parents desired should be done if necessary Fortunately, however, the progress of the disease was arrested, and the use of the remedies gradually discontinued, beginning with the papayotin, followed by the peroxide of hydrogen, the frequency of the doses of the biniodide of mercury being lessened, until three doses daily only were given, and this was continued until January 9, when it also was discontinued The patient made a perfect recovery without any symptoms of unpleasant sequelæ

In this case, the solution of biniodide was not sprayed into the nose, as it is now my custom whenever there is reason to suspect infection in the nares When this is done, the solution of biniodide and the peroxide are used alternately, allowing a sufficient interval of time to elapse, so that the one solution will not decompose the other, as might be the case if they were used immediately after each other In no case have I considered it necessary to blow the papayotin into the nostrils, because there is not here the danger of suffocation constantly before our eyes

Case 5 —I was called to see R F, aged about twelve years Her symptoms were of some low type of fever, temp 101, pulse 90, skin dry, face of a pale, dusky hue, eyes slightly suffused, no headache or other pain, bowels regular, urine normal, slight thirst, no appetite, tongue moist, there had been slight epistaxes but no abdominal symptoms, no glandular swellings These conditions continued without any important variation for nearly three weeks, when a patch of diphtheritic membrane appeared in the throat, and shortly after I noticed it in the nostril, and now for the first time could any swelling of the cervical glands be detected Treatment with sol biniodide of mercury, and with the peroxide of hydrogen was now begun, using other remedies alternately by the atomizer to the nostril and to the pharynx, and cleansing out the throat twice daily with a brush Within a week, all trace of membrane had disappeared, and the family having moved to another house, the child made a rapid recovery

A few days afterwards, being called to the patient mentioned above, my attention was directed to a younger sister who was looking badly, but did not complain of being sick Beyond her paleness and loss of appetite, and a little bleeding at the nose, which had recurred for several days, I could find nothing, until upon a very careful examination of the nostril I noticed a slight deposit, which of course stamped the case

The remaining child, the youngest of the three, was next examined, and in her nostril I found a well developed membrane, although she never had shown the slightest sign of sickness

The same treatment was pursued in these three cases, they all progressed favorably without noteworthy incident, and made good recoveries without any sequels The occurrence of these cases, including all the children of the household, naturally led to an investigation of the causes, which lay behind this invasion of disease Upon inquiry, I found that the mother and also the nurse of the children had been out of sorts for some time, the mother particularly complaining of sore throat, but without deposit, the father of the children, was in good health, but his occupation kept him much out of doors The floor upon which the family slept was divided into three rooms, one of which was a bath room containing a water closet The door of the bath room was within about a foot of the door of the room in which the children slept These two rooms occupied the southern side of the building I found that the doors and windows of all the rooms, including the bath-room, were habitually left open, so that the air from the bath-room had every opportunity to circulate through the sleeping apartments This house was the centre tenement of a block of three houses, all newly built and recently occupied, yet in the house on one side of that in which my parents resided, there had been one or more cases of typhoid fever, and the inhabitants of the house on the other side were constantly ailing with malarial fever, they said An inspection of one of the houses was made by a sanitary engineer, showing many defective points in the plumbing, one house being a type of the others

The remaining cases developed no new features, and it is therefore unnecessary to burden this paper with an itemized report of them, they were all treated upon the principle already set forth, and in none of them was there any unpleasant result I am confident, moreover, that several other cases of diphtheria have been successfully treated upon this plan, by the relatives of patients without calling in medical aid The prescriptions were renewed, and the treatment carried out, as I had directed for other members of the same family, or in a friend's family I am warranted in this belief by the descriptions of the cases given to me later, of course these are not included in the number mentioned here

There are some cases of diphtheria, in which the membrane is almost the last, or among the last symptom to appear, or it might be safer, perhaps, to say, that the membrane appears very late upon a part open to inspection, if it appears at all It is of vital importance to be able to diagnosticate such cases of latent diphtheria, and in some cases, I think it can be done with a fair degree of certainty A strongly marked case of this kind is No 2, and any case presenting such a train of symptoms, might be well looked upon as so suspicious that the physician would feel himself warranted in adopting an anti diphtheritic treatment, even though he might hesitate to report such a case to the health authorities

In discussing this plan of treating diphtheria, I may be met by the assertion, that the use of mercurial salts as remedies in this disease, is old and well known, but be it observed, that I claim for the biniodide of mercury a greater power than is possessed by any other mercurial preparation, more especially when held in solution by iodide of potassium It is a very common error to mentally group a series of preparations of one base as being one and the same in a therapeutic point of view, than this there can be nothing more erroneous, nothing more likely to lead to fallacious conclusions or to develop unexpected, if not disastrous results Simply to say that a case of diphtheria was treated with mercury, is to say nothing The preparation must be known, and as the mode of administration changes the therapeutic action of the remedy, this also should be stated Even when most accurately described and most carefully followed, it seems often impossible to attain the results claimed for a remedy Certain individuals seem to acquire a dexterity in the use of a medicine altogether unattainable by others Thus some seem to succeed admirably with benzoate of soda in the treatment of diphtheria, others with chlorate of potash and muriated tincture of iron, others with salicylic acid, some with resorcin, some with pepsin and dilute sulphuric acid, etc Let it be understood then, that I do not propose this as a specific treatment for diphtheria, warranted to succeed in every case, by whomsoever employed, but, I bring it before the Association as a method worthy of trial, at least, and as likely to prove useful in the hands of many practitioners

Judging from the reports made to the Academy of Sciences, by M Marcand (*Lancet, Scientific American*, January 24, 1885), other vegetable juices may be found, which will act more powerfully upon the diphtheric deposit than papayotin, instance the agave The author ascribes the action of these juices to a micro organism, and as in the microscopic world, its members find their sustenance by the destruction of each other, so, in the depths of microscopic life the organisms subsist the one upon the other, and hence it is well within the range of probability that some microbe may yet be discovered, which will attack and destroy the bacterium of diphtheria, or it may be that other local applications will be brought forward, having a more powerful action upon the deposit, as for example iodoform, which I have seen acting well

After a careful consideration of the subject, I think it may safely be asserted that no treatment of diphtheria is to be relied upon which neglects the possibility of blood-poisoning, and fails to provide a remedy for it To summarize then the present treatment, it includes 1, A blood antiseptic, which is also, 2, a local germicide, 3, a softening agent or digestor of the membrane, 4, a solvent of the membrane Let us hope that the future will give one remedy combining these essential characteristics

These suggestions, it is hoped, may be of some value in view of the possible, nay probable, bacterial origin of diphtheria (see *New York Medical Journal*, January 10, 1885, p 49) In the matter of precautions to be taken to prevent the spread of diphtheria, the pamphlet issued by the Michigan State Board of Health, (*Gaillard's Medical Journal*, February, 1885, p 1971,) might be consulted with advantage

Dr Sears, of Texas, while having no experience with the bin-iodide of mercury, had given the bichloride a fair trial, but could not recommend its use, indeed his success, no matter what drugs were used, was decidedly poor, as fully one-half of all his cases had proved fatal

Dr Walker, of Arkansas, remarked that in the city of Little Rock, Ark , the bin-iodide of mercury (the drug so highly lauded by Dr Nunn) had been extensively used during an epidemic with the result that the profession there, numbering some forty regular physicians, had declared it worthless as a curative agent in diphtheria The doctor, in common with many of his brethren, had at one time believed that potass chlorate and tr ferr mur freely used could be relied on to cure diphtheria, but a fuller experience with the disease had convinced him that it was futile to look for anything like specific effects from any course of medication whatever, and he feared that the treatment so highly spoken of by Dr Nunn would prove no exception to the rule

Dr Catlin, of Wisconsin, had also congratulated himself on his ability to successfully deal with diphtheria, his plan was one or more large doses of quinine as an initiative, followed by tr iron and potass chloras in full doses frequently repeated During one epidemic he had treated 80 cases in this way, and lost only one patient, but, unfortunately, in the next epidemic the treatment wholly failed He could say nothing more favorable in regard to mercury, having given the bichloride in a sufficient number of cases to show that it produced no particular effect as a remedial agent in these cases The disease was, to all intents, a blood-poison, patients suffered very much as they would after a snake-bite, and this offered the only correct clue to treatment, namely, alcoholics in anything like severe cases (and in mild cases little was required, beyond prudent hygienic measures) was the sheet anchor and ought to be given for their effect The tolerance of alcohol in diphtheria was often as marked as in snake-bite Of course proper nutriment, as milk, must also be administered as necessary

Dr Weichselbaum, of Savannah, Ga , had treated diphtheria with the iron and potash, and had seen no particularly good effects, indeed he had formerly concluded that it was a disease over which no known remedy had any good effect whatever, latterly, however, he had pursued a course similar to that advocated by Dr Nunn, and he was bound to admit that the bin-iodide of mercury and the other drugs alluded to by Dr Nunn in the paper just read exerted a really curative influence on the disease, an influence that so far as he knew was unparalleled in the history of diphtheria

Dr Upham, of Vermont, had been meeting with diphtheria in its various forms since 1860 His experience was quite extensive, and he had earnestly sought for some remedy in which confidence could be placed, but he confessed himself appalled at the terrible mortality of the disease, and the utter failure of treatment to lesssen that mortality

Dr Catlin was of opinion that we were yet in the dark, both in regard to the real nature of diphtheria and the principles upon which treatment should be conducted, and considered that the vast number who are victims every year of the disease ought to stimulate intelligent enquiry on the subject of prophylaxis and treatment.

Dr. Holliday, of La., having observed diphtheria ever since 1854, thinks it milder now than formerly. In regard to the problem whether diphtheria is a local or a constitutional disease in the beginning, the speaker was still unable to decide definitely; indeed, there were so many sources of error, that further observation by intelligent and impartial investigators was much needed to settle this vexed, though all important, question.

As regards the aphonia that is occasionally present in diphtheria, the speaker stated that it might be caused either by stenosis or œdema of the vocal cords and their allied structures, but so far as he knew we were unable to differentiate between the two processes. Dr. Holliday further remarked that recovery was rare in cases of complete aphonia occurring in the subjects of diptheria, yet it occasionally happened; in his own practice he had met with such recoveries.

Dr. Nunn closed the discussion by remarking that he did not offer a specific for all cases of diphtheria, but as he had obtained results from the treatment outlined in his paper so much surpassing anything else with which he was acquainted, he merely wished the profession to fairly try his plan, and he believed that results the most beneficial could be looked for.

PRIMARY MALIGNANT DISEASE OF THE KIDNEYS

BY GEORGE MINGES, M.D.,

OF DUBUQUE, IOWA.

(*Concluded from page 627.*)

Prognosis.—Unless interfered with by nephrectomy, malignant disease of the kidney inevitably ends in death in from four weeks to five or six years. One case has been known to last 18 years, but the average duration given by Roberts is 2½ years, being almost three times longer in adults than in children. By adding to Roberts' cases those of my table occurring since 1866, we find the average duration in 28 adults to be about 2½ years, in 36 children about 9 months. Of course these figures can only be approximative, and are probably below the reality as the disease may remain latent for a time; yet the proportion is probably about correct.

Temporary improvement has occurred in several cases, but sometimes this was due to the removal of complications. The fatal termination is generally brought about by a gradual wearing out of the vital powers, although sometimes death occurs rather unexpectedly.[1] It may also be hastened by rupture into the peritoneal cavity or perforation of the parietal walls. The occurrence of profuse hæmaturia, as a rule, does not hasten the termination, although in Doderlein's case death is said to have occurred from hæmorrhage into the tumor, and in one of my cases almost continuous vesical tenesmus came near causing death.[1] Uræmia has been the determining cause of death in a few cases,[2] and in one case stercoraceous vomiting.[3] The inferior vena cava being filled with clots in such a great proportion of cases, I am surprised not to find any deaths from embolic processes.

According to Roberts, cancer of the kidney proves fatal less quickly than cancer of other internal organs, probably because there is another kidney to perform the functions of the diseased one, and because, from its situation, it has sufficient room to develop for some time without interfering with the functions of other vital organs.

Treatment.—In the majority of cases of cancer of the kidney, the treatment will have to be symptomatic, as the diagnosis is generally made comparatively late. The pain, which is present in a certain proportion of cases, must be subdued by anodynes, gastric symptoms met according to the individual indications, and by tonic treatment and nourishing diet the fatal termination may perhaps be postponed for a short time. As it at present seems a fashion to give arsenic for all varieties of malignant disease, it is perhaps well to administer it in these affections, although it is doubtful whether any benefit is derived from it. The hæmaturia, when profuse, demands attention, and sometimes severely taxes the skill and patience of the physician. Absolute rest in bed is to be enjoined, anodynes administered to allay anxiety and irritation, and stimulants and drugs which irritate the kidneys avoided, although small doses of turpentine may have a hæmostatic influence. Cold may be applied externally, and ergot, acetate of lead, gallic acid, and other astringents given internally. Generally the hæmorrhage finally ceases, probably spontaneously, perhaps never to return, or, it may be, to come again in frequent attacks. Vesical tenesmus, due to the passage of clots, is to be relieved by anodynes and, if necessary, by washing out the coagula through a catheter, with tepid water or mild alkaline and antiseptic solutions. I will now present the report of the following unique case, a partial report of which I have already made to the Dubuque Medical Society in February, 1880, under the title of "A Case of Paroxysmal Hæmaturia; Operation of Cystotomy to Remove Clots; Improvement."

Case V.—Dr. H. J. R., of Dubuque, Swiss, æt. 69 years, came under my treatment in November, 1879, for hæmaturia, which had troubled him at intervals for several years. During childhood he had enuresis nocturna, and since that time he has been forced to arise three or four times every night to urinate. The attacks of hæmaturia came on without premonition in the midst of apparent good health, generally after drinking beer, and lasted from a few hours to several days, generally causing no symptoms aside from a sudden and imperative desire to urinate, and not hindering him in the fulfillment of his professional duties. As a rule, the hæmorrhage was slight, the blood being intimately mixed with the urine. Four years ago, retention was several times caused by large coagula, necessitating the use of the catheter, and once he was picked up in the streets insensible, remaining in that condition until morning. For a while patient discontinued the use of alcoholic beverages and soda water, as they seemed to stand in a causative relation to the attacks. On January 14, 1880, having had no hæmorrhage for several weeks, he drank two small glasses of beer in the evening, and next morning there was some blood in the urine The hæmaturia could not be arrested longer than for a few hours at a time in spite of all treatment, it increased in intensity, and the patient had to be kept under the influence of narcotics all the time His condition became so bad that it was determined to perform cystotomy in order to allow the clots to escape through the perineal wound as fast as formed, and thus prevent the tenesmus He was almost moribund when the operation was performed, on January 30, by Dr Benj McCluer, assisted by Drs J S Lewis, J H Greene, and the writer A median incision was made, and some clots two inches in diameter were evacuated During the night there was considerable tenesmus from time to time, and narcotics were freely used, the patient being quite collapsed

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[1] Cases 6, 31 and 57 of table.

[1] Case 57 of table.

[2] Cases 7 and 12 of table.

[3] Case 34 of table.

On the following morning the urine was free from blood, and remained so for nine or ten days From the morning after the operation the patient quickly rallied, and needed no medication whatever At no time was there any fever After two or three days he could retain his urine for three or four hours at a time, but the wound was kept dilated, so as to be prepared for future attacks In about two weeks some urine began to escape from the urethra Slight hæmorrhage recurred occasionally, and on the eighteenth day after the operation about half a pint of pure arterial blood was passed, forming a jelly like cake at the bottom of the urinal The wound in the perineum was therefore dilated every few weeks

In the paper above mentioned, the writer held that the hæmorrhage was of renal origin, because he could feel nothing abnormal in the bladder, but principally because long, worm shaped clots were sometimes found in the urine, which obviously came from the ureter, yet he was certain that he did not have to deal with malignant disease, on account of the complete absence of pain and tumor, the long duration of the disease, and the good general condition of the patient In the intervals between the attacks of hæmaturia, the urine showed absolutely nothing abnormal Frequent hæmorrhages, some of them profuse, occurred up to June, 1880, but as a precautionary measure the wound was kept open for a month or two longer

During the persistence of the fistula, patient was able to control his urine perfectly, and attended to his professional business About the middle of March some obscure swelling was manifested in the left lumbar region, very slightly tender on deep pressure, and some œdema of the ankles, yet the urine remained normal After July, 1880, except œdema of the legs, some cachexia and emaciation, and very troublesome insomnia, nothing noteworthy was observed until about January, 1881, when there appeared a very annoying, itching, scaly eruption over the whole body The itching became almost unbearable, and patient's bed was thickly strewn with scales In the spring this eruption completely disappeared The tumor in the loin did not seem to grow much, and there was no pain The most annoying symptom was insomnia Patient tried to practice, but memory began to fail him No more hæmorrhages occurred until a few weeks before death, when the urine was occasionally tinged with blood About the middle of November, 1881, he experienced considerable pain in the lumbar region, and died, rather unexpectedly, about two weeks afterwards, six or more years after the first hæmaturia, and almost two years after the performance of cystotomy

The autopsy showed the left kidney enlarged five or six fold, and containing encephaloid material in a firm capsule The tumor lay behind the intestines and did not reach the anterior parietes Ureter and bladder normal, also prostate gland Right kidney hypertrophied This would have been an excellent case for lumbar nephrectomy, on account of the small size of the tumor, the good general condition of the patient, and the absence of secondary deposits

Nephrectomy — The dictum of Ebstein in 1876, that our profession celebrates no triumphs in the treatment of malignant tumors of the kidney, is no longer founded on fact, for the results so far obtained in these cases by nephrectomy, although by no means brilliant, still justify a hope for the attainment of better results in the future Already great advances have been made In 1884, Homans[1] tabulated 26 cases of nephrectomy for renal malignant disease Of these only 8 recovered and 18 died Less than six months later Billroth[1] reported 33 operations, with 13 recoveries and 20 deaths, or 7 new operations, with 5 recoveries and only 2 deaths, a wonderful improvement for so short a time Strange to say, Weir,[2] although referring to the article just mentioned, in his paper published six months later, forgets to add to his collection of 33 (32?) cases, Billroth's two successful operations and a third one reported as doing well after two days and hence arrives at the conclusion that the results of nephrectomy have not improved lately Billroth shows why the results thus far have been so unsatisfactory, when he says "We cannot be surprised (at the results) when we read with shuddering what has been dared in this field, Tumors the size of two heads, in old, marastic subjects, large encephaloids in debilitated children were operated upon, and several of the operated died upon the table Here also many errors of diagnosis Too much certainly has been attempted in this line "

History —Nephrectomy was first performed unintentionally, in 1860, by Walcott, of Milwaukeee, he having mistaken a cancerous kidney for a hepatic cyst[3] Patient survived 15 days Next, Peaslee, also unintentionally, extirpated a renal tumor while intending to perform ovariotomy The first intentional, and also the first successful nephrectomy, was that performed by Simon, of Heidelberg, for uretero vaginal fistula The first successful nephrectomy for malignant tumor was done by Langenbuch

As for the ultimate results so far obtained, two of those operated upon were living 30 months after operation, one after 22 months and one after over a year The youngest child, 11 months old, was operated by Czerny, and died in three days The youngest child successfully operated upon was 2½ years old, but it died of recurrence in 9 months One case died of recurrence five days after discharge from hospital[4] Hicquet, of Liège, removed a sarcoma from a girl of 6 years[5] Recovery was complete in two weeks, but I have not been able to learn the ultimate result S W Gross[6] finds the disease to recur in about one-third of the cases, but primary malignant disease of the kidney has less tendency to invade surrounding structures than other internal cancers According to Kuhn, secondary growths occur in 28 per cent of cases affecting children, in 44 per cent of those affecting adults In my table I find too few data on this point to be of much value The immediate results of the operation are about the same in children and adults, for in 20 adults the operation was successful in 6, in 6 children it was successful in 2[7]

Connecting this fact with Kuhn's observation as to the comparative rarity of secondary deposits in children, and remembering how rapidly fatal these tumors are in childhood when not interfered with, Dr R P Harris[8] does not seem justified in saying "We are not prepared by the evidence of final

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[1] Boston Med and Surg Jour January 24 1884

[1] Wien med Wochensch 1884 Nos 23 24 and 25

[2] Med News December 27, 1884

[3] Phil Med and Surg Reporter 1861 p 126

[4] Richard Davey s case in table

[5] Bull Acad Med Belg 1882

[6] Med News June 9 1883

[7] I had arrived at these conclusions from the study of Dr Homan s case already referred to

[8] Am Jour Med Sciences, July, 1882

ANALYTICAL TABLE OF SIXTY CASES OF PRIMARY

				SYMPTOMS							
				TUMOR							
No	By whom and where reported	Age Sex Side	Cause		Mobility	Relation of Intestine	Hæmaturia	Pains	Gastric	Urine	General
1	Langstaff *Cyclopædia of Practical Medicine* Revised by R Dunglison	Young Adult F R		After 6 weeks in hypochondrium pulsating			Arterial several attacks	In 6 wks dull pain tumor tender	Bilious vomiting	Much and limpid sediment muco purulent	1st sympt m vesical tenesmus much limpid urine hæmaturia much reduced rallied wonderfully bet attacks
2	Ibid	70 M L					Tinged	Great in kidney		Difficult urination then retention	
3	Bence Jones Braithwaite xxx 85 *Med Times & Gazette* June 17 1854 p 613	45 M R		None noticed during life			Yes	Under ribs and loin first symptom then thigh and groin	Bowels regular	Alw'ys some blood globules and oxalate of lime	In 1¼ yrs intense neuralgia of face & back of head in 2¼ yrs hæmoptysis no cachexia
4	Ibid	37 M L		None noticed during life			Occasionally after exercise	Some in loin			No cachexia
5	Charles West *Diseases of Children* 1866	2 yrs 10 mos M		Enlarged abdomen			Few days in early part		Craving appetite Some diarrhœa		Languid and fretful
6	Ibid	14 mos I		In one week			None	In abdomen	Some vomiting No diarrhœa		
7	Ibid	6¾ yrs I		Six weeks after vague symptoms			In 3 m copious & often, to d th	Scarcely any	Frequent diarrhœa		Anasarca
8	Robert A Practical Treatise on Urinary and Renal Diseases 1866	59 F R		Since 2 years Enlarged veins		Colon crosses obliquely		After a time pain and feeling of crumpling parchment	Diarrhœa		
9	Ibid	6 J I		Abdomen large from birth at death 4[illegible] in in circum Enlarged veins		Descending colon in front			Voracious thirsty	Normal	Œdema orthopnœa
10	Tyson *Phil Med Times* Vol XXX p 4[illegible]9	52 M R		About 16 mos To crest of ileum			Two yrs gradually increasing with clots	Intense pain 6 yrs explained by passage of a calculus finally constant		No casts	Emaciation and weakness in bed 16 mos with paraplegia and incont of urine Œdema of legs
11	Albert H Smith *Am Jour Obstet* Vol III p 476	3¾ M I	No heredity	Began in 3 mos In 1 mo more began growing smooth no fluctuation until 8 mos Veins enlarged No tumor in loin		In front & to right later to right	Pure blood 2d day and just before death	Occasional short attacks after 5 mos agonizing	Appetite and digestion good constipation after 7 mo	Trace of alb Total suppression for [illegible] days difficult micturition	First 5 mos perfect health after 6 mos emaciation hectic fever and œdema of left leg
12	John Cutteras *Phil Med Times* Vol III p 59[illegible]	68 M R		Abdomen large dilated veins not examined for tumor			3 attacks in hospital last one profuse	None		No albumen nor casts	Œdema ulcers of legs and anæmia all of which disappeared dyspnœa
13	J C Wilson of Edinboro Pa *Med & Surg Reporter* for 1871 Vol XXV p 548	2½ M R	Another child died of indurated mesenteric glands (?)	Projected beyond knees when sitting Elastic above firm below not tender Some fluctuation after 3¼ months	Somewhat movable	Whole intestinal below stomach in front of tumor	1st symptom profuse hæm with clots for some time then no more	None	Dyspepsia at times	Epithelial sediment	No emaciat'n first 3¼ months then sunken expression dyspnœa temporary improvement couldn t stand last 6 weeks
14	Krackowitzer Reported by Jacobi *Am Journal Obst* Vol VII p 276	4½ R		Size of large cocoanut when 7 or 8 mos old	Slightly		Yes	None			None
15	*London Lancet* Oct 1879 p 617	28 M I		Since 8 months	By pressure in loin	Trans'se colon and small intestine in front	Urine tinged for 4 months	Since four mos pain in loin discomfort over blad	Occasion'l vomiting and diarrhœa		Great emaciation temp never above 100° F
16	Wm H Geddings Aiken S C *Gyn Trans* Vol II p 479	3¾ I Negro L	Parents healthy	Since [illegible] mos Hard nodular not fluctuating		Transverse colon gave tymp resonance at ant lower part		None	Ravenous appetite bowels regular	Milky at first leaving white stain	No fever played about confined to bed only last two days
17	Jessop *London Lancet* June 17 1877	2 yrs 3 mos L		Two months ago			1st symptom				Anæmia and emaciation
18	Langenbuch *Berl Klin Wochensch* 1877 No 44	32 I L		Globular, smooth	Somewhat fr m side to side		None	Since 18 months in lumbar region now intolerable	Good appetite	Perfectly normal	Vigorous
19	L A Waggener Carrollton Mo *St Louis Med & Sur Jour*, Vol XXXVIII p 301, 1880	3¼ yrs M I	Trampled on by a colt	Began 10 days after injury Tumor elastic from rib to ileum and 1 inch beyond med line				Immediately after injury			

MALIGNANT DISEASE OF THE KIDNEYS

				PATHOLOGY					
				DISEASED KIDNEY					
Diagnosis	Operation	Result	Duration	General Appearance	Variety	Size	Adhesions	Secondary Deposits	Other Kidney
Enlarged liver		Fatal	5½ years	Nodular, surrounded by condensed peritonæum contained a layered clot weighing 3 lbs		11 lbs 13 ozs	Liver		Several enlarged pulpy tubera
		Died of apoplexy							
Scrofulous disease of kidney		Died of hæmoptysis	2½ years	Globular no kidney structure left pelvis dilated filled with encephaloid material ureter blocked by encephaloid to within 2 or 3 inches of bladder	Encephaloid			None found lungs healthy	Healthy
Renal calculus		Fatal		Hard infiltrated throughout with white solid encephaloid matter*	Encephaloid			Liver & lungs Lymphatic glands much enlarged	Healthy
		Fatal	10 mos		Medullary and fungus	Size of head			
		Died suddenly	10 wks		Medullary and fungus	Size of head			
		Died in coma	10 mos		Medullary and fungus	Size of head			
Cancer of ovary		Fatal		No kidney structure left		Double Normal size	Partly to colon closely to liver	None	
		Fatal	symptoms 1 year				Descending colon imbeded in tumor	None	Enlarg d
Impacted calculus later suspected true nature		Fatal		Trabecular interstices filled with cancer matter	Encephaloid		Stomach	Lungs & liver 3 or 4 vertebræ eroded	Enlarg'd
	Aspirator obtained no fluid	Sank gradually	9 mos	Tense elastic tumor with thickened capsule no kidney structure left ureter dilated and filled with organized clot	Encephaloid stroma of spindle cells	3½ lbs	Descending colon only		Moderately enlarged
Scurvy		Died in coma and convulsions			Encephaloid	Size of fœtal head		None Vena cava occluded by clots	
Non malignant tumor of kidney		Fatal	7 mos	Large tumor enclosed in dense fibrous capsule only soft pulpy mass in pl of kidney	Encephaloid with large clots	20 lbs	Whole intestinal canal	Only in left lung	Double normal size
Cancer or cyst of kidney		Died under chloroform during examination	About 4 yrs	Homogeneous soft reddish remainder of kidney external to tumor	Round and giant celled sarcoma	3 to 4 lbs			
		Sank rapidly	9 mos	Hard masses of colloid matter and encephaloid cysts ⅛th kidney unchanged pelvis dilated ureter pervious	Cancer	32½ oz 7x5x2½ inches		Abdominal glands	Large & granular
Malignant tumor of kidney		Fatal	9 mos	No kidney left ureter lost in tumor		13½ lbs 11x8 in	Stomach colon and near vertebra	Small nodules in liver	Normal
Malignant disease of kidney	Nephrectomy Incision as in lumbar colotomy Whipcord ligature en masse	Rec d fr op died of recur *in 9 mos*			Encephaloid	16 oz			
Perinephritic tumor	Nephrectomy under Listerian precautions Incision from angle of twelfth rib to ileum	Recovery		One large cyst into which the remainders of pyramids hung in the shape of threads ureter thickened and dilated		8x5x2½ inches	To lumbar muscles		
		Fatal	5 mos (?)	Large tumor crossed by colon considerable cortical portion and some pyramids remaining		9½ lbs	Spleen pancreas stomach diaphragm	Numerous small abscesses in liver	Healthy

ANALYTICAL TABLE OF SIXTY CASES OF PRIMARY

No	By whom and where reported	Age Sex Side	Cause	SYMPTOMS							
				TUMOR							
					Mobility	Relation of Intestine	Hæmaturia	Pains	Gastric	Urine	General
20	J Davis Fitch *Chi Med Jour & Examiner* Vol XXXV p 148	2 yrs 7 mos L		Hard tumor reaching almost to sternum				Causing lameness first symptom		Normal	Pale collapsed countenance, some fever
21	Shrady N Y *N Y Med Rec'd*, 1880 XVIII 326	L		27 inches around abdomen at umbilicus						No albumen or blood	Average temperature 100⅗° F
22	J Lewis Smith N Y *N Y Med Rec'd* 1880 XVIII 326	19 mos L		From ribs to ileum	Tumor tilted forward by pressing on kidney				Evacuation of mucous streaked with blood aversion to food	Scant sometimes albumen	Drooping 6 mos temp 101°–102° F
23	William H Byford Chicago *Gyn Trans* Vol V p 71	39 F L		Fluctuation over whole abdomen not changing with position Hard non fluctuating tumor very movable shape of fœtus, felt by deep pressure	Very movable seemed to have no connection felt like an extra uterine fœtus				Indigestion alternating diarr and constipation	Normal	Menses irregular and frequent not copious Has not been well for 18 mos much emaciated hystero epileptic attacks *jaundice*
24	Wendt *Med Record* May 1 1880	Elderly M		Very large							
25	Jacobi *Am Jour Obstet* Vol XIV p 113	3½ yrs at death M L	Grandmother had cancer	Began 2 mos after hematuria mostly solid but fluctuating in places			1st symptom 2 yrs ago after suppression and coma	In 9 mos much in abdomen	Good appetite bowel regular occasional vomiting	Freq urination sometimes retention without hematuria trace of alb	General condition good until near end then emaciation and insomnia
26	Mr A Barker *London Lancet* March 30 1880	21 F R			Movable		Almost constant & often profuse during last 50 days	For 8 mos lumbar pain intense for 3	Frequent nausea & vomiting	Nothing but blood corpuscles	Weak
27	Czerny of Heidelberg *Centralbl f Chir* [illegible]	50 M L		Large tumor 2 yrs	Slightly movable	Colon found in front by injecting water		In tumor			
28	Skene *Am Jour Obstet* Vol XII p 731	3 yrs 3 mos L							Some gastric derangement		Emaciation temp imp't so that med attendance was discontinued for a time Rapid emaciation last 20 to 30 days [Peritonitis
29	Kocher *Deutsche Zeitschr f Chirurgie* Band IX Heft 3 & 4	2½ L		Noticed shortly after birth Spherical and firm with cylindrical projections	Freely upwards & downwards & somewhat in median line	Not felt in front but found in operation				Normal	
30	Van Denburg *Am Jour Obstet* Oct 1881	7 F R		Noticed 6 weeks after first pains Dullness continuous with liver from beginning		Descending found on autopsy like umbilical cord		1st symptoms some pain in bowels then occurring in paroxysm every 6–8 day from liver to scap tumor tender	At first app poor then fair bowels pretty regular bilious vomiting	Uric acid crystals	Fever 102° pale anxious countenance bluish around mouth œdematous last few weeks no jaundice œdema of feet at end well bet paroxysms
31	Edgerly *Bost Med & Sur Jour* CIV 131	7 F L		Some swelling under ribs Then up to pubes and across median line Indistinct fluctuation above hard below				In left side sev wks tum tender		Always looked normal	White corpuscles increased
32	C Ellerly Stedman *Bost Med & Sur Jour* CV 440	4 F L and R		Swelling in flank crossed by large veins		Colon crossed ¾ way down	None	Little or none	Capricious appetite	Amt normal 1⅛ % albumen granular and hyaline cast	Convulsions œdema of legs and body temp 99°–102° F
33	Goss *Bost Med & Sur Jour* CVIII 57	55 M L		Noticed only occasionally during last few weeks			None	In abdomen	Nausea some vomiting	At first normal, later albumen and casts uræmic convulsions 3 wks	Phthisis in family considerable cough improved at sea shore dulness of left lung uræmic convulsions last 3 weeks cancerous cachexia
34	Dowse *Brit Med Jour* 1873 Vol II, p 586	L		Large superficial veins				[illegible] parox of pain in loins	Diarr and sickness at end stercoraceous vomiting		Cachexia collapse
35	Walter Whitehead *Brit Med Jour*, Nov 5 1881	46 F R		Yes	Freely movable	Not crossed by colon as proven in operation	Yes	None		Mixed intimately with blood no casts large red cells with large nuclei	Beginning to be impaired

MALIGNANT DISEASE OF THE KIDNEYS

				PATHOLOGY					
				DISEASED KIDNEY					
Diagnosis	Operation	Result	Duration	General Appearance	Variety	Size	Adhesions	Secondary Deposits	Other Kidney
		Fatal	1 mo after lameness	Cancer containing cysts filled with large clots no normal kidney structure remaining	Cancer with cysts containing large clots	2 lbs		Doughy swelling of gum tumor ab Poupart's ligam't	
		Fatal	4 mos	Diffluent colon crossing tumor in front				Liver	Hypertrophied
Enlarged spleen		Fatal	7 mos		Myxo sarcoma			Pancreas absent) not stated whether destroyed by disease)	
Probably renal tumor	Tapped of fluid abdominal incision under spray evacuated 16 to 18 lbs fluid tumor attached by 2 broad peritoneal folds which tied by transfixion and tying in 2 portions	Living after 30 mos	19 mo		Encephaloid	8x6 in 4½ lbs	Two broad peritoneal folds to lumbar region		
		Died of progressive marasmus	5 yrs	Solid tumor no kidney structure left	Sarcoma		Partly to other viscera		Double size
- Sarcoma of kidney	Aspirated at several points obtaining only a little blood	Fatal	2 yrs	Solid tumor containing nests of still more solid portions no kidney remaining	Sarcoma	Size of head			Normal
Movable kidney later movable encephaloid kidney	Nephrectomy incision as in ovariotomy strictly antiseptic Ureter tied separately pedicle in two portions with twisted silk	Died in 2 days of pulmonary thrombosis	8 mos	Very soft in places	Encephaloid	7x4½x4⅔ in 30½ oz		Small nodule in lungs and lumbar gland suspicious specks in liver	Healthy
Renal tumor	Ventral nephrectomy Tumor so friable as to break down and cause hæmorrhage controlled only by ligature of aorta	Died in 10 hours	2 yrs	Very soft, large tumor colon in front	Medullary sarcoma	Large	Meso colon	Meso colon	
Enlarged spleen		Fatal from exhaustion		Solid tumor	Sarcoma	5 lbs 7 oz			
Fecal tumor enlarged spleen or renal tumor	Exploratory puncture gave only a few drops of blood Extirpation by abdominal section Ligated pedicle	Died in convulsions on third day	Over 2 yrs	Soft reddish tumor with clear juice remainder of kidney expanded about tumor tough capsule around outside colon in front of tumor	Adeno sarcoma cell in form of tubules abundant embryonal tissue	3 lbs			
Hepatitis Gallstones Multiple hydatids of liver	Aspirated several times once three pints fluid looking like mucilage streaked with blood	Fatal	5-6 mos	Roundish tumor enclosed in firm capsule containing numerous cysts adherent to liver ½ of kidney remaining behind tumor calyces filled with white substance ureter seemed pervious	Cyst adenoma or cysto sarcoma	3 lb	[illegible]		
		Fatal	16¼ weeks	Tumor of brain like matter	Sarcoma	[illegible]			
		Little urine for 2 days died quietly		Large tumor behind left kidney not involving the same right kidney contains several nodules some encapsulated cortex normal no communication with pelvis	Sarcoma	[illegible]			
Suspected cancer last few weeks		Died from exhaustion	2-3 years	Kidney enlarged to 3 times its normal size little structure left pelvis dilated	Medullary [illegible]				
		Died rather suddenly of collapse							
	Nephrectomy Longitudinal incision with transverse at right angles vessels ligated ureter tied separately bet. 2 ligatures large drainage tube through transverse incision	Died 4 days after operation cause obscure		Firm tumor covered by friable vessels					

ANALYTICAL TABLE OF SIXTY CASES OF PRIMARY

No	By whom and where reported	Age Sex Side	Cause	SYMPTOMS TUMOR							
					Mobility	Relation of Intestine	Hæmaturia	Pains	Gastric	Urine	General
36	Richard Davy *Brit Med Jour* Oct, 1884	53 M L		Yes							
37	T Johnson Alloway *Am Jour Obstet* 1883 Vol XVI, 881 and 993	5 yrs F R	Struck post after falling down stairs A paternal aunt at 6 had lump in side which disappeared in 2 years	Lump in side 3 mo after accident Later continuous dulness from liver to 1 inch above ileum Fluctuations over whole tumor veins not much dilated in beginning bruit without pulsation which soon disappeared	Mov'ble by hand and during respiration	Colon to left border	None,	P'n in belly toward evg tum not tend'r,	Some vomiting in beginning app fair constip'n and diarr	Normal frequent micturition	Great emaciation, no jaundice no œdema no fever
38	W C Wheeler *Bost Med & Sur Jour* Vol CX p 106	6[illegible] M		Not discovered until removing 16 lbs ascetic fluid			Not before 4 weeks ante mortem	None	No vomiting		Œdema of legs & ascites
39	H Lossen *Deutsche Zeit f Chir* Bd XIII p 199	37 F R		Firm tumor for 1[illegible] mos rapidly enlarging	Very movable as far as median line			None		Normal much diminished soon after op but soon normal amount	Healthy in third mo of pregnancy
40	T Gaillard Thomas *Med News* Vol XL Nos 1 and 24	21 F		Situated in centre size 8 mos pregnant uterus	Perfectly movable	Large coil in front but not noticed till operation					
41	J S Little *Med News* Vol XLIV, p 399	4 yrs F		Several inches beyond median line abdomen tense and fluctuating, enlarged veins						Normal	Considerable ascites no œdema of ankles could not walk, otherwise good health
42	Henry G Rawdon *Liverpool Med Chir Journal* July 1883	16 mos F		Noticed 2 months slowly increasing until it extended from ribs to ileum and 1 inch beyond median line Solid elastic globular 2 or 3 prominence of softer consistency	Somewhat movable	Crossed by colon and not adherent to it	No			No blood or albumen	
43	S W Gross *Med News* June 9 1883	59 F		Three mos ago small tumor in anterior lower part then size of child's head firm, no lular	Mobile	No intestine in front	Several times in 2 months	None at first then in loin increasing with growth		Only blood corpuscles	Good general condition somewhat sallow
44	Jacobi *Med Record* May 1 1880	4		Large solid							Good to end
45	Porter *Med Record* '82 Vol XXII, p 48	25 F L		First symptoms 4 months ago							Œdema left leg
46	James E Adams *London Lancet* 1883	39 M R		None externally			Intermitt for 2 yrs latterly profuse	In right loin		Blood, pus triple phosphates epithelium	
47	Jacobi *Med Record* 1881 Vol XIX p 217	53 M L		Swelling left renal region				Renal colic sev years Renal region tender		Pus clear after operation	Rigors temp 103° F dyspnœa dulness left upper thorax improvement distressing cough
48	Frank H Rowe *Am Jour Obstet* Vol XIV, p 484	6 F R	Sleeping in newly painted room No heredity	After some time rapid tumor first hard then very fluctuating lobule in front, feeling like kidney, liver pushed forward Enlarged veins on abdomen	Fixed	Not noticed during life	1st attack a few hrs after pain Frequent & severe, with much tenesmus	Belly ache 1st sympt almost immediately Tumor not painful vesical tenesmus	App and bowels normal defecation painful craving for sulphur	Album and blood no cancerous masses no uræmia clots size of little finger	Anæmic sallow, some jaundice, great emaciation œdema of legs, no fever
49	Paul *Brit Med Jour* April 19 1884	1 yr L		Yes							
50	John Homans *Bost Med & Sur Jour*, Vol CX p 73 Jan, 1884	29 M L	Heavy lifting 2 years ago	Tumor feeling like hypertrophied spleen but projecting also into region of kidney began 15 mos ago	Freely movable during respira t'n falls on right side when p t turns on it	Colon cut during operation	For 2 yrs from time to time sometimes long clots	In back when jumps or stumbles	Appetite variable	No pus no stone blood casts from tubules ureter, and perhaps urethra	Emaciated weak

MALIGNANT DISEASE OF THE KIDNEYS

				PATHOLOGY					
				DISEASED KIDNEY					
Diagnosis	Operation	Result	Duration	General Appearance	Variety	Size	Adhesions	Secondary Deposits	Other Kidney
Cyst of kidney or ureter	Lumbar incision Evacuated 16 oz dusky fluid no calculus removed kidney ligated artery vein and ureter separately	Discharged in 2 mos 5 days later died of recurrence in liver				7x2½ inches			
Probably malignant kidney		Death from asthenia	6 mos	Brain like with clots perforated capsule thrombus right iliac artery inf vena cava obliterated ureter obliterated trace of kidney at lower part of right border	Round cells little stroma firm strands		Cœcum and omentum		
		Fatal							
Ovarian tumor	Abdominal section Strictly antiseptic ligature in mass slipped almost causing fatal hæmorrhage clamp ureter tied separate	Abortion in 12 hours septic endometritis recovery in 8 months	1 year	Tumor size of child s head bluish crossed by large veins soft after op firm capsule continuous with that of kidney latter quite healthy tumor prob y dev d in capsule	Angio sarcoma				
Ovarian tumor	Abdominal section for ovarian tumor but found intestine in front ligated pedicle in mass and dropped	Considerable dropsy for time but finally recovered			Fibro cystic	10½ lbs after removing 6 lbs fluid	Everywhere		
Hydronephrosis	Aspirated 8 oz dark red fluid containing only blood corpuscles exploratory incision for hydronephrosis removed 2 qts fluid from cyst extirpated kidney strictly antiseptic	Died in 1½ hours from shock	Supposed from birth	Tumor 6 in in diam surrounded by firm capsule containing large cyst	Round celled sarcoma	6 in in diam			
	Abdominal nephrectomy under antiseptic precautions vessels and ureter tied separately	Died in 15 hours cause obscure	2 mos	Solid elastic globular tumor with 2 or 3 softer module extending from rib to ilium no trace of normal kidney structure remaining	Carcinoma with cysts	16½ oz	Firmly adherent to descending colon in front		
Cancer of kidney	Strictly antiseptic exploratory incision through abdomen nephrectomy tied in mass with carbolized silk pulse feeble removed gall bladder with calculus	Died in 5 days of peritonitis and anuria	3 mos	Tumor firm but consisting of nodules of unequal consistency	Medullary carcinoma	18 oz		Liver fatty & enlarged	Healthy
Sarcoma suspected		Fatal	Since birth (?)	Large solid tumor	Sarcoma				Healthy
		Fatal	4 mos	Tumor in thickened capsule but little kidney left pelvis obliterated except a small part filled with grumous matter ureter hypertrophied	Round connective tissue corpuscles in homogeneous matrix	3 lbs	Diaphragm duodenum	Heart diaphragm other kidney duodenum	3 secondary nodules
	Exploratory lumbar parallel to ribs then extirpation peritoneum opened in loosening adhesions tied en masse with whipcord free drainage	Died in 4 days plugging left renal vein effusion both pleuræ	2 yrs	Twice size normal kidney			Peritoneum	Lumbar gl'nds and ribs	
Pyonephrosis	Renal region aspirated and pus found abscess incised and much pus evacuated drainage	Death from lobar pneumonia and erysipelas of wound	Several years	Kidney considerably enlarged perinephritic abscess behind it.	Cancer	Several times size of kidney		Other kidney omentum liver	Carcinomatous to lesser extent
		Fatal	14 mo	Bluish glistening fluctuating tumor like bladder filled with fluid surrounded by strong fibrous tunic cerebriform contents which flowed off table no kidney structure left colon crossing in front	Medullary cancer cells	11–12 lbs	All around	Nodules in liver	
		Fatal	6 mos	Brain like	Congen (?) sarcoma	6 lbs body only 10 lbs			
Probably tumor of kidney perhaps malignant	Under spray incision in linea semi lunaris from near ant sup spine of ileum thro costal cartilage and another at r angles cut intestine ½ inch and sewed up vessels and ureter clamped and then ligated with carbolized silk drainage through loin	Died in 51 hours during that time less than ℥vj urine general peritonitis		All of kidney degenerated colon in front	Cancer				Normal size

ANALYTICAL TABLE OF SIXTY CASES OF PRIMARY

No.	By whom and where reported	Age Sex Side	Cause	SYMPTOMS: Tumor			Hæmaturia	Pains	Gastric	Urine	General
					Mobility	Relation of Intestine					
51	Frosin *Arch f path Anat u Phys* Bd XCVI Hft 3	3 yrs L		Large							Emaciation
52	Billroth *Wiener med Wochenschr* No 23 24 25	58 F		Smooth tumor size of man's head 5 year	Immovable		None	5 years		Some albumen no formed elements no casts	Good able to work until a year ago
5	Ibid	55 M		Yes							
4	Billroth *[illegible]* May 1 1884	50 M		Scarcely any fluctuation	Somewhat movable					Normal	At first very good then swelling of leg ascites thrombosis of both femorals from which patient recovered fever
	Jacobi *Am Jour Obstet* Sep 1884	2 yrs R		Fluctuating crossed by large vein Separate from liver by resonant strip		Ascending colon crossed lower segment obliquely on autopsy					Emaciation dyspnœa temporary improvement
	C M Staple Published by C Minge	3 M L		Five mos Marked fluctuations		Colon noticed in beginning but not certain Soon lost	None	None	Appetite fair	Normal	Senile appearance of countenance cachexia only near end no fever weakness
	C Minge	71 M L		Only last few mos In loin		In front	Frequent copious attacks necessitating cystotomy	In loin only last two weeks	Fair	Normal A few worm shaped clots	Emaciation cachexia œdema of leg chronic eczema for a few mos
	C Minge	15 yrs M L	Fall on fence hard with abdomen	First noticed in 4 weeks Nodular fluctuating	By pressure in loin	Descending colon in front	In [illegible] wk several slight attacks	Last mo severe in abdomen	Fair	Pus globules numerous epithelium uric acid trace of alb	Emaciation cachexia only at last right lower extremity wasted temp 99°
	F McCluer Published by C Minge	8 yrs F L		Large veins enlarged solid month	None	Not found by percussion but after death in front	None	Some in left side disappearing when tumor first noticed	Loss of appetite constipation		1st symptom weariness and appearance of hunchback temp improvement hectic fever
60	[illegible] Published by C Minge	5 F R	Lifting tub Sister had cancer of breast	Six weeks after hæmaturia	Somewhat as tumor grew	In front at autopsy	Sometimes after pain	In loin after lifting tub	Constipation	Blood corpuscles tube casts albumen broken down fragment and a cast from ureter	Cachexia well marked

results to recommend the operation in cases of renal sarcoma of children, where at best the temporary relief is but a poor return for the risk, suffering and perhaps parental anxiety in the case.

However, the opinions differ on this point, for in a case of rapidly growing malignant tumor in a child recently brought before the Society of Charité physicians in Berlin, Henoch and Langenbuch advised operation, while Hahn and Guterbock opposed it.[1] The operations in children have been too few to allow of definite conclusions.

There are two methods of performing nephrectomy, one by lumbar incision, the other abdominal, and each of these methods has again been modified. The abdominal incision may be made in the linea alba as preferred by Spencer Wells, or by Langenbuch's incision in the linea semilunaris, the operation always preferred by Thornton, who says that it is just as free from danger as the lumbar when antiseptic precautions are used, and as a proof of his assertion has operated on 10 cases for all kinds of disease and always successfully. When the abdominal section must be resorted to, as in case of large tumors, Langenbuch's incision is probably to be preferred, because the vessels are more readily reached and the intestines are less likely to slough from interference with their circulation. In the abdominal operation it seems advisable to follow the suggestion of Spencer Wells, viz., to sew up the posterior incision in the peritoneum, and the suggestion of Brichetti and Barwell to drain the large retro-peritoneal cavity through the loin, as very troublesome abscesses are otherwise very liable to form in that situation, and the danger from septic absorption is great.

The lumbar operation seems to be the better one, as it has given far better results than the abdominal, the formed saving 4 cases out of 7, the latter but 2 out of 19, as shown by Homans' table.[1] It is possible, however, that this difference is due to the fact that all very large tumors can only be removed

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[1] Berlin klin Wochenschrift 1884

[1] Homans loc cit

ANALYTICAL TABLE OF SIXTY CASES OF PRIMARY

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				TUMOR							
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52	Billroth *Wiener med Wochenschr* No 23 24 25	38 F		Smooth tumor size of man's head 5 years	Immovable		None	5 years		Some albumin no formed elements no casts	Good able to work until a year ago
53	Ibid	33 M		Yes							
54	Billroth *Wien med Zeitung* May 1 1884	50 M		Scarcely any fluctuation	Somewhat movable					Normal	At first very good then swelling of legs ascites thrombosis of both femorals from which pat recovered fever Emaciation dyspnœa temporary improvement
55	Jacobi *Am Journ Obstet* Sept 1884	2 yrs R		Fluctuating crossed by large vein Separate from liver by resonant strip		Ascending colon crossed lower segment obliquely on autopsy					
56	C M Staples Published by C Minges	3 M L		Five mos Marked fluctuations		Colon noticed in beginning but not certain Soon lost	None	None	Appetite fair	Normal	Senile appearance of countenance cachexia only near end no fever weakness
	C Minges	71 M L		Only last few mo In loin		In front	Frequent copious attacks necessitating cystotomy	In loin only last two weeks	Fair	Normal A few worm shaped clots	Emaciation cachexia œdema of leg chronic eczema for a few mo
8	C Minge	5½ yr M L	Fall on fence board with abdomen	First noticed in 4 weeks Nodular fluctuating	By pressure in loin	Descending colon in front	In 2 wks several slight attacks	Last mo severe in abdomen	Fair	Pus globules numerous epithelia uric acid trace of alb	Emaciation cachexia only at last, right lower extrem wasted temp 99°
59	R McCluer Published by C Minges	8 yr I I		Large veins enlarged solid smooth	None	Not found by percussion but after death in front	None	Some in left side disappearing when tumor noticed	Loss of appetite constipation		1st symptom weariness and appearance of hunchback temp improvement hectic fever
60	P J Morison Published by C Minges	o I R	Lifting tubs Sister had cancer of breast	Six weeks after hematuria	Somewhat as tumor grew	In front at autopsy	Some time after pain	In loin after lifting tub	Constipation	Blood corpuscles tube casts albumin broken down fragments and a cast from ureter	Cachexia well marked

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The lumbar operation seems to be the better one, as it has given far better results than the abdominal, the former saving 4 cases out of 7, the latter but 2 out of 19, as shown by Homans' table.[1] It is possible, however, that this difference is due to the fact that all very large tumors can only be removed therefore it is almost impossible to verify, by actual experiment, whether the particular organism fixed upon is, or is not, causally connected with the malady. However, we now know such a large number of bacteric diseases, that, even without this last proof, we are warranted by analogy in coming to a conclusion as to the causal or non-causal connection between cholera and any particular organism. In every case, where a definite form of organism has been discovered, in large numbers, in the diseased parts of an animal, and where this organism has never been found associated with other diseases, or normally present in the same animal, it has been found by experiment to be the cause of the disease. Fortunately, in the case of cholera, it seems as if, under certain circumstances, a somewhat similar affection can be induced in certain animals, and thus the foregoing difficulty is much diminished.

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[1] Berlin klin Wochenschrift 1884

[1] Homans loc cit

Now, the following seems to me to be the line of investigation to follow in the case of cholera, from the bacterial point of view; it is, in fact, practically the line which was followed by Dr. Koch. In the first place, the blood and tissues would be carefully searched for bacteria, but attention would be more especially paid to the contents of the intestine. In every case examined, all the different forms of micro-organisms present in the evacuations would be carefully separated and studied. This would be done in a large number of cases and then those forms only occasionally present would be rejected, and attention directed to those constantly present. If there were more than one of these, an important point would be to note which were generally present in greatest numbers. Their relation to the tissue of the intestinal wall would also be noted, but this is of only secondary importance. The next point would be to determine which of these were only found in cholera, and which were found in other affections as simple diarrhœa, dysentery, etc., or under circumstances in which Asiatic cholera was out of the question. Then the effects of these organisms on animals must be studied, and any facts observed which relate to their causal or non-causal connection with cholera. That there are numerous other points to be investigated is, of course, evident to all.

By the mere form it is quite impossible to distinguish any one variety of bacterium from others of which the form is somewhat similar. Thus, the micrococci are all round bodies, and, except for slight differences in size or grouping—often quite inappreciable—they closely resemble each other; and it would, therefore, be quite impossible to tell one species or variety from another, if the form alone were taken into account. And the same holds good with the bacilli and the spirilla. Indeed, taking into account the great variations in size and form shown by the same organism when grown in different media, it would be rash, and would certainly lead to error, if one attempted to determine the kind in any given case by microscopic appearance alone. Without entering at length into the materials employed in the cultivation of bacteria, I may state at once, what is now an acknowledged fact, that the greatest amount of information is to be derived from cultivation in meat infusion rendered solid by the addition of gelatine. This material was first introduced with the view of enabling one to carry on pure cultivations of various bacteria, on the principle that, in a solid medium, bacteria can only grow where they fall or are planted, and that thus the presence of accidental contamination could be readily recognized, and the growth which is being studied be transferred to a fresh medium before it has become mixed with the extraneous organisms. It was soon found, however, that various organisms growing on this solid material could be readily distinguished from each other, even by the naked eye, by the form assumed by their colonies, by their effects on the gelatine (liquefaction, etc.), and by other characteristics; and thus, perhaps, the most important use to which this material is now put, is the distinction of different forms of organisms from one another. For this purpose, the gelatine is employed in three different ways.

The first we may call test-tube cultivations. In this method, a certain quantity of the gelatinized material is introduced, while still liquid, into a number of sterilized test tubes plugged with cotton-wool, and, after the material has been sterilized by repeated boiling, it is allowed to solidify with the test-tube in a vertical position, and kept for a few days to see if it be pure. A long, fine platinum wire, stuck into the end of a glass rod, is sterilized by heat, and dipped into the material containing the pure cultivation of the organism. The cotton-wool plug being removed, with various precautions to prevent the access of dust into the tube, the infected wire is plunged into the jelly down to the bottom of the tube. It is then rapidly withdrawn, the wool plug is reinserted, and the tube placed at a suitable temperature. By the appearance of the growth, both on the surface of the jelly and along the tract of the wire, and by its effects on the jelly, much information may be derived as to the species under observation. Thus, one organism may grow both on the surface of the jelly and along the needle tract; another, though microscopically similar, may grow along the tract of the wire, and not on the surface; a third may liquefy the gelatine, and so forth.

The second method we may term slide cultivations. Here a number of ordinary 3 by 1 microscopic slides are sterilized by heat, placed on a series of glass trays, in a dish containing moist blotting-paper, and covered by a bell jar. On these slides some liquefied jelly is poured, and allowed to solidify. The wire, charged as before, is then rapidly drawn over several parts of the surface of the jelly. Bacteria are thus sown at various points along the tracts, and, growing there, produce colonies, the appearance of which can be studied under the microscope with a low power.

The third method, which may be called glass plate cultivations, is that which is also used for the examination of water, and for the separation of different forms of bacteria from one another. In this method, a minute quantity of the material containing bacteria is introduced into a tube of jelly, rendered liquid by keeping it for a few minutes at the body temperature. The liquid jelly is then well shaken, so as to diffuse the bacteria throughout it, and is poured out on ster-

In several cases the hæmorrhage was frightful, Hueter's case,[1] for example, dying on the table from hæmorrhage from the renal vessels In one of Prof Czerny's cases the hæmorrhage from laceration of the tumor was so great as to necessitate ligation of the aorta, and death occurred in ten hours

Most operators are in favor of strict antiseptic precautions, and this seems to me another argument in favor of the lumbar operation, as carbolic acid poisoning is very liable to occur from the peritoneal exposure, and the absorption of a small amount may prove very serious to the remaining kidney, perhaps already seriously embarrassed by vicariously performing the function of the extirpated organ

Knowsley Thornton ties the bladder end of the ureter and pins it outside the abdominal wound cleansing it with tincture of iodine, and packing around it absorbent cotton moistened in the same fluid He does this to prevent regurgitation of urine and septic material into the peritoneal cavity, for in one case in which he dropped the ureter it sloughed but was finally discharged through the wound and patient recovered Other details will be found in a very able paper on "Hydronephrosis" by my friend, Dr G A Staples, of Dubuque[3]

Before proceeding to operate we should endeavor to determine the soundness of the other kidney for Polk has extirpated the kidney in a case where there was but one, and Lange removed the sounder of two kidneys the other being entirely degenerated To obtain the urine from one kidney various means have been devised to compress the ureter of the opposite side Polk has invented a clamp for that purpose Davy's rectal rod can be used for the same purpose Sands advises compression of the ureter with the hand in the rectum Silbermann introduces small bags through a catheter and afterward fills them with mercury to accomplish the same end I am indebted for these suggestions to the recent very valuable paper of Dr Weir[4]

Even in successful cases of nephrectomy marked diminution of urine or complete anuria is apt to exist for some time after operation but the hypertrophied kidney of the opposite side soon takes upon itself the task of acting for two James R Chadwick who operated on a retro-renal sarcoma, and in whose case this temporary diminution of urinary excretion likewise occurred, thinks that it is caused by shock He kept his patient for some time before the operation on acetate of potash to increase the quantity of urine, and on a strict milk diet to diminish the excretion of urea

From the foregoing remarks it will be seen that the results after nephrectomy for malignant disease, although still very unsatisfactory, are becoming more favorable, and it is highly probable that, as we become more adept in making an early diagnosis, aided, if need be, by exploratory incision under antiseptic precautions (which has been done by Billroth 27 times without harm to examine gastric carcinomata), the operation may become divested of many of its dangers, and becoming universally recognized in the treatment of properly selected cases, add another triumph to *true* conservative surgery, whose noble aim is to conserve human life

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[1] Case 5 of Homans table Deutsche Zeitsch f Chirurgie Bd IX p 572

[2] Case 10 of Homans table Centralbl f Chirurgie No XIX, 1879

[3] Journ of Am Med Assoc, April 12 and 19 1884

[4] Loc cit

[5] Boston Med and Surgical Journal October 23 1884

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

The Cholera-Bacillus —The following is an abstract of Mr W Watson Cheyne's report to the Scientific Grants Committee of the British Medical Association on *The Cholera-Bacillus* In view of the great importance of the etiology of cholera, I have, for some months past, been engaged in observations on that subject, and, during the epidemic of Asiatic cholera in Paris, I went over there, and made some investigations on the bacteria present in the dejecta The present paper gives the results of those investigations and to the report of my work, and the conclusions at which I have arrived, I have added an appendix, in which reference will be made to the observations of others, more especially to those of the English Commission

In the study of every disease supposed to be caused by bacteria, three distinct lines of investigation must be followed In the first place, the seat of the disease (blood tissues, etc) must be thoroughly investigated, with the view of discovering what organisms are constantly present, the characters of these micro-organisms must be studied, not only their microscopical characters, but also their behavior on cultivation in various media, and the bacteria must also be separated by cultivation from other morbid products In the second place, it must be determined whether the bacteria that are constantly present are ever found in other diseases of the same species of animal, or under circumstances in which they probably ought, if they are the true cause, to have produced the disease, and have not done so And in the third place it must be ascertained, by experiment on suitable animals, whether the organism so studied can reproduce the original disease

In two very important respects, cholera presents differences from most of the diseases which have as yet been investigated, and found to be dependent for their origin on certain bacteria In the first place, in most of the diseases referred to, the cause is situated in the blood or tissues, and we have only one particular form of bacterium present, which is easily isolated and studied In the case of cholera, the cause is apparently situated in the intestinal canal, and, if there is any blood-affection at all, and there seems great reason to believe that there is, it is probably due to the presence of a chemical poison produced by this cause Now, in the intestinal canal, there are normally large numbers of bacteria of different kinds, and one must, therefore, find great difficulty in the first instance in picking out the organism specially associated with the disease In the second place, cholera apparently only attacks man, and therefore it is almost impossible to verify, by actual experiment, whether the particular organism fixed upon is, or is not, causally connected with the malady. However, we now know such a large number of bacteric diseases, that, even without this last proof, we are warranted by analogy in coming to a conclusion as to the causal or non-causal connection between cholera and any particular organism. In every case, where a definite form of organism has been discovered, in large numbers, in the diseased parts of an animal, and where this organism has never been found associated with other diseases, or normally present in the same animal, it has been found by experiment to be the cause of the disease. Fortunately, in the case of cholera, it seems as if, under certain circumstances, a somewhat similar affection can be induced in certain animals, and thus the foregoing difficulty is much diminished.

Now, the following seems to me to be the line of investigation to follow in the case of cholera, from the bacterial point of view; it is, in fact, practically the line which was followed by Dr. Koch. In the first place, the blood and tissues would be carefully searched for bacteria, but attention would be more especially paid to the contents of the intestine. In every case examined, all the different forms of micro-organisms present in the evacuations would be carefully separated and studied. This would be done in a large number of cases and then those forms only occasionally present would be rejected, and attention directed to those constantly present. If there were more than one of these, an important point would be to note which were generally present in greatest numbers. Their relation to the tissue of the intestinal wall would also be noted; but this is of only secondary importance. The next point would be to determine which of these were only found in cholera, and which were found in other affections as simple diarrhœa, dysentery, etc., or under circumstances in which Asiatic cholera was out of the question. Then the effects of these organisms on animals must be studied, and any facts observed which relate to their causal or non-causal connection with cholera. That there are numerous other points to be investigated is, of course, evident to all.

By the mere form it is quite impossible to distinguish any one variety of bacterium from others of which the form is somewhat similar. Thus, the micrococci are all round bodies, and, except for slight differences in size or grouping—often quite inappreciable—they closely resemble each other; and it would, therefore, be quite impossible to tell one species or variety from another, if the form alone were taken into account. And the same holds good with the bacilli and the spirilla. Indeed, taking into account the great variations in size and form shown by the same organism when grown in different media, it would be rash, and would certainly lead to error, if one attempted to determine the kind in any given case by microscopic appearance alone. Without entering at length into the materials employed in the cultivation of bacteria, I may state at once, what is now an acknowledged fact, that the greatest amount of information is to be derived from cultivation in meat-infusion rendered solid by the addition of gelatine. This material was first introduced with the view of enabling one to carry on pure cultivations of various bacteria, on the principle that, in a solid medium, bacteria can only grow where they fall or are planted, and that thus the presence of accidental contamination could be readily recognized, and the growth which is being studied be transferred to a fresh medium before it has become mixed with the extraneous organisms. It was soon found, however, that various organisms growing on this solid material could be readily distinguished from each other, even by the naked eye, by the form assumed by their colonies, by their effects on the gelatine (liquefaction, etc.), and by other characteristics, and thus, perhaps, the most important use to which this material is now put, is the distinction of different forms of organisms from one another. For this purpose, the gelatine is employed in three different ways.

The first we may call test-tube cultivations. In this method, a certain quantity of the gelatinized material is introduced, while still liquid, into a number of sterilized test-tubes plugged with cotton-wool, and, after the material has been sterilized by repeated boiling, it is allowed to solidify with the test-tube in a vertical position, and kept for a few days to see if it be pure. A long, fine platinum wire, stuck into the end of a glass rod is sterilized by heat, and dipped into the material containing the pure cultivation of the organism. The cotton wool plug being removed, with various precautions to prevent the access of dust into the tube, the infected wire is plunged into the jelly down to the bottom of the tube. It is then rapidly withdrawn, the wool plug is reinserted, and the tube placed at a suitable temperature. By the appearance of the growth, both on the surface of the jelly and along the tract of the wire, and by its effects on the jelly, much information may be derived as to the species under observation. Thus, one organism may grow both on the surface of the jelly and along the needle-tract; another, though microscopically similar, may grow along the tract of the wire, and not on the surface; a third may liquefy the gelatine, and so forth.

The second method we may term slide cultivations. Here a number of ordinary 3 by 1 microscopic slides are sterilized by heat, placed on a series of glass trays, in a dish containing moist blotting-paper, and covered by a bell jar. On these slides some liquefied jelly is poured, and allowed to solidify. The wire, charged as before, is then rapidly drawn over several parts of the surface of the jelly. Bacteria are thus sown at various points along the tracts, and, growing there, produce colonies, the appearance of which can be studied under the microscope with a low power.

The third method, which may be called glass plate cultivations, is that which is also used for the examination of water, and for the separation of different forms of bacteria from one another. In this method, a minute quantity of the material containing bacteria is introduced into a tube of jelly, rendered liquid by keeping it for a few minutes at the body temperature. The liquid jelly is then well shaken, so as to diffuse the bacteria throughout it, and is poured out on sterilized glass plates kept in a dish, arranged as for the last method. The jelly solidifies, and the bacteria, having been caught in various parts, grow there and form colonies, which may be readily recognized under the microscope with a low power. This mode of growth in colonies on glass plates is one of the best means of distinguishing different species of bacteria from one another. The exact form and size of the colonies depends to a considerable extent on the amount of gelatine used, although the general type remains the same. Hence 10 per cent. of gelatine is now always employed, in order to secure uniform results. Further information as to difference in kind may in many cases be obtained by growing the organisms on the cut surface of cooked potatoes, in milk, in meat infusion, etc. And then, again, by inoculation of animals different results will be obtained with different bacteria. Hence, in coming to a conclusion as to the nature of any given bacterium, its various characteristics, its form, its mode of growth, and its effects on animals, must be taken into consideration. Reliance on mere form alone, or indeed, on any single characteristic, is not in any case satisfactory, and will in all probability lead to error. In the case of Koch's cholera bacillus this is especially important, as a number of bacilli are now known which resemble it very closely in microscopic appearances. Hence when the cholera bacillus is spoken of an organism is meant which, along with certain morphological characters presents also certain peculiarities on cultivation on various materials.

(After sending tubes of his cultivation to Dr. Koch and receiving his assurance that they were cultivations of his cholera bacillus and that they were *pure* cultivations, he commenced his work.)

The cholera bacillus varies very much in form, according to the conditions under which it is growing, but the general type is that of a short rod somewhat curved. I cannot describe it better than has been done by Dr. Koch, who says that it is at most about two thirds the length of the tubercle bacillus and curved, the curve being commonly about that of a comma. The degree of curvature, and the length and thickness of the organism, vary however, very much, as I have just said with conditions under which it is grown. The forms which it assumes, when it grows rapidly may be readily studied in the following manner. A number of slides, with small depressions or cells hollowed out in their centre, are placed in beakers plugged with cotton wood, and sterilised in an iron box raised for three hours to the temperature of 300° Fahr. When they are cool, a little vaseline is brushed round the margin of the cell, and the slides are laid on a sterilised glass plate, and protected from dust by a glass shade. A similar number of cover glasses are cleaned and sterilised by passing them several times through the flame of a Bunsen burner, and placed on a pure glass plate under another shade. By means of a purified syringe, to the end of which is attached a narrow bent glass tube, a minute quantity (about one third of a minim) pure infusion of meat, neutralised, and containing 3 per cent. of peptone, is placed on the centre of each of these cover-glasses. Each drop is then inoculated from a pure cultivation of cholera bacilli. (The purity of the cultivation is easily ascertained by making glass plate cultivations in nutrient jelly at the same time, as formerly described, and this, of course, ought always to be done.) The cover-glasses are now seized in purified forceps, inverted and placed over the cell on the slides, the edge of the cover-glass being pressed down so as to diffuse the vaseline all round. Care must be taken not to use too much vaseline, otherwise it may run over the glass and become mixed with the cultivating fluid. With a little practice, one can easily manage to have the infected drop hanging from the middle of the cover glass without any admixture with the vaseline. These slides are now placed in an incubator, kept at the temperature of the human body. After the lapse, say of an hour, one is removed, the cover glass lifted off, inverted, placed on the top of the incubator under a glass shade, and dried rapidly. When dry, it is passed through the gas flame three times, to fix the layer to the glass, and to render the albuminoid materials insoluble in water, and it is then stained in a suitable solution (fuchsin, methyl violet, etc). After staining, it is washed in water, or, after the methyl-violet, in weak acetic acid, dried thoroughly, and mounted in Canada balsam. By removing slides at intervals of half an hour to an hour, and preparing the cover-glasses in the manner described, a beautiful series of permanent preparations, illustrating the mode of growth may be obtained and studied at leisure. To get a regular series, showing the successive stages of growth, the same amount of fluid and the same number of bacilli must be placed on each cover glass. This is readily managed by inoculating, in the first instance, the flask of meat infusion with the bacilli, and then placing it in an incubator for two or three hours. The bacilli grow and diffuse themselves through the liquid. Before use, this liquid is well shaken and by means of a finely graduated syringe, the same quantity of fluid, and hence probably the same number of bacilli, is placed on each cover glass. —*British Medical Journal*, April 25 and May 2, 1885.

(*To be continued.*)

MATERIA MEDICA AND THERAPEUTICS

A Mustard Sponge.—In referring to sponge as a carrier of poultices, Dr. Richardson considers that it makes the best of mustard carriers. The nurse mixes the mustard in a basin with water until the mass is smooth and of even consistency. Then she takes the soft mass all up with a clean sponge, lays the sponge in the centre of a soft white handkerchief, ties up the corners of the handkerchief neatly to form a hold, and applies the smooth convex surface to the skin. This mustard sponge, warmed again by the fire and slightly moistened, can be applied three or four times, is good for several hours, and saves the trouble of making a new poultice for reapplication, often a matter of importance during the weariness of night watching. The sponge can afterward easily be washed clean in warm water. It is scarcely necessary to add that this method will save both time and trouble, and that the same sponge may be used frequently.

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the under signed When neither is accessible remittance may be made at the risk of the publishers, by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, JUNE 13, 1885

THE COMMITTEE ON THE INTERNATIONAL MEDICAL CONGRESS

Since our last issue, we learn that the officers of the original committee appointed at Washington have called a meeting of the general committee, as organized previous to the meeting of the American Medical Association in New Orleans, to be held in Washington during the month of September next, for further conference in regard to the organization of the International Congress of 1887 Instead of inviting the additional members appointed at New Orleans to meet with them as a part of the same committee, they are simply notified of the time and place of meeting, that they may meet as a separate committee at the same time if they choose Such a course is in no respect in accordance with the action of the Association in New Orleans, and it is difficult to see how any good can be accomplished by it Moreover, the delay until September is in strange contrast with the activity displayed by the same parties in pushing the work of organization heretofore

On account of this practical refusal to promptly invite the newly added members to meet as a part of the general committee, we are assured that those members will agree among themselves on a place and time for a much earlier meeting If they do, we hope they will not fail to cordially invite each of the eight members appointed at Washington, to attend with them as regular members of the committee according to the plain terms of the first resolution adopted by the Association in New Orleans, and thereby leave no excuse on their part for a failure to have a full meeting of the committee as re-constructed by the American Medical Association at its last meeting

THE CHOLERA BACILLUS

In the numbers of the *British Medical Journal* for April 25, May 2, 9, 16, and 23, is to be found MR W WATSON CHEYNE'S "Report on the Cholera-Bacillus," a report submitted to the Scientific Grants Committee of the British Medical Association From a careful study of this report it seems that it is the most thorough article on the subject that has yet appeared, with the exception, perhaps, of Koch's first report at the Berlin Cholera Conference in 1884 Indeed, in some respects it is much more thorough than that report In making his experiments, he has followed out the line of investigation pursued by Koch as closely as possible On account of the length of Mr Cheyne's report it will be impossible to do more than summarize the principal points in this place In another column, however, we present as full an abstract of his paper as space will permit

It will be remembered that Koch stated that certain acids, particularly mineral acids, when present in the cultivating materials in small quantities, prevent the development of the bacilli, and that the bacilli are killed in the stomach These statements as to the behavior of the bacilli in the presence of an acid were fully confirmed by Mr Cheyne by direct and control experiments Six experiments were made with a two per cent solution of hydrochloric acid (the quantity normally present in the stomach), and with artificial gastric juice With the first there was no development of colonies after 9 min 56 sec, with the second there was no development after 9 min 25 sec It may be said, therefore, that the bacilli cannot live more than ten minutes either in a two per cent solution of the normal acid of the gastric juice, or in the gastric juice itself It is thus seen that the experiment of ingesting a quantity of matter containing cholera bacilli into the stomach is utterly valueless as a proof that the bacilli are in no way connected with cholera

Is the cholera bacillus of Koch peculiar to Asiatic cholera? To this question Mr Cheyne replies it must be evident that, as it is the almost unanimous statement of various observers that this organism is always present in Asiatic cholera, it follows that, unless it be peculiar to this disease, it should be widely distributed throughout the world, and should, therefore, be readily found Mr Cheyne has failed to find it except in cases of Asiatic cholera He points out that there are other comma-shaped bacilli than those found in Asiatic cholera, but shows in the most conclusive manner that they behave very differently under cultivation He shows further that microscopic examination is of no value whatever in deciding the differences between these comma-shaped bacilli, it is absolutely indispensable that culture tests be employed. It is in connection with this question that Mr Cheyne commences to speak somewhat freely concerning Klein's criticisms of Koch, and still more freely of the numerous sources of error in Klein's experiments, and he shows quite clearly that Klein's experiments were faulty in a great many respects—so faulty that no conclusions whatever can be drawn from them.

As regards experiments on animals with cultivations of the cholera bacilli, Mr Cheyne says: "In two instances, guinea pigs died undoubtedly as the result of the growth of the cholera bacilli in their intestines; they certainly did not die of septicæmia. I have given a drawing of bodies which were found in the large intestines of these animals, along with other bacteria, both curved and straight. I think it most probable that these bodies are the cholera bacilli, which were found, on cultivation, to be present in enormous numbers, because there were no other markedly curved organisms present, and because they seemed to show all gradations between small slightly curved rods and the large coiled bodies shown (in a drawing). It is, however, only right to say that the gentleman who made the drawings for me thought that these bodies were minute entozoa, but this view did not seem to me probable. The microscopic appearance is, however, of no consequence, the essential fact being that, on cultivation, I found that almost all the colonies which developed on the plates were colonies of cholera-bacilli, showing that they were present in the intestine in enormous numbers. I should also state that I have made cultivations from the intestinal contents, and from the dejecta, of healthy guinea pigs, and have never found cholera bacilli. . . . As regards mice, in two instances death occurred in a few hours after subcutaneous injection of a cultivation, as the result, apparently, of absorption of a chemical poison from the material injected, and in one instance, the cholera-bacilli grew in the blood of the animal, passed into the intestine, and killed the animal."

The question now arises as to the diagnostic value of the cholera bacillus. Apart from any causal connection that it may have to Asiatic cholera, it must be seen that the discovery is of the utmost importance as a means of diagnosis, for it seems to be constantly present in the disease. The confirmatory evidence that it is always found in cases of Asiatic cholera is exceedingly strong, and when it is remembered that it has never been found in any other disease, it becomes still stronger. Mr Cheyne says: "As I have pointed out, various organisms with somewhat similar morphological characteristics have lately been described, but accurate examination has shown that these are different from the cholera-bacillus, and can be readily distinguished from it. Hence the converse of these propositions necessarily follows, namely, that if the cholera-bacillus be found in dejecta, these dejecta must have come from a patient suffering from Asiatic cholera; in other words, the presence of this bacillus may be used as a means of diagnosing Asiatic cholera." He again points out that for diagnostic purposes the microscope is useless, except for recognizing the forms after cultivation; culture experiments must be performed. "In any suspicious case, the patient can be isolated, his dejecta thoroughly disinfected, and all the necessary precautionary measures adopted, while, in the meantime, it is being ascertained whether or not it is a case of true Asiatic cholera. Thirty-six to forty-eight hours would suffice for this purpose, because in thirty-six hours, the colonies on the glass plates are visible under a low power of the microscope, and their characteristics can be studied. I venture to think that, if Koch's work on cholera leads to nothing more than this, it is an achievement for which he deserves the very highest praise.'" He mentions the fact that the importance of this matter has been appreciated by the German government, and that medical men from various parts of Germany have recently received instructions from Koch in the methods of cultivating and distinguishing the cholera bacillus so that they are now able to ascertain at once with regard to any suspicious case, whether or not it be a case of Asiatic cholera. His remark, "surely some steps ought to be taken in this country to enable our medical officers of health to acquire like information," is also lamentably applicable to our own country.

Mr Cheyne concludes his report with the following significant words: "Dr Koch's facts remain now as correct as when he first published them. He said that this organism was constantly present in Asiatic cholera, and that it was present nowhere else. These statements have now been amply confirmed, and it is perhaps the most striking evidence in favour of the precision of Dr Koch's methods, and of the care which he has devoted to the subject, that, although other bacilli, of somewhat similar appearance, have since been discovered, yet, by the use of his methods, it has been found easy to distinguish them from one another, and from the cholera organism." These words from so careful an observer as Mr Cheyne are full of import, and outweigh any amount of evidence from careless observers We learn with pleasure from his article that Dr Koch will soon publish another very important paper on this question, giving particular attention to the subject of experiments on animals with bacilli cultivations

FOR NEW MEMBERS OF THE ASSOCIATION

It should be remembered by all members of the American Medical Association, that the office of publication here is dependent upon the Treasurer of the Association, for the names and address of all members who are entitled to receive the JOURNAL on account of their membership No one but the Treasurer has the record of the annual payment of dues, whether at the annual meetings or in the interval between such meetings Those who become members by proper application to the Treasurer at any season of the year, usually have their names transmitted to us within a few days, and we commence sending them the JOURNAL immediately But at each annual meeting of the Association, there are from two to four hundred names registered as new members, and they are indiscriminately interspersed with the names of several hundred old members Consequently, it takes a little time after each annual meeting for the Treasurer and Secretary to separate accurately the names and address of the new members, and forward them to this office It was only last week that we received the list of those who became members for the first time at the recent meeting in New Orleans, and they were all supplied with the issue of the JOURNAL for June 6th, although their journal-year, does not begin until the first issue in July, which will be number one of volume five For it should also be remembered, by all interested, that the journal-year commences with the first week in July, and ends with the last week in June, during which each member receives two complete volumes, each accompanied by a title page and full index

As the annual meetings of the Association vary in time, from the first week in May to the first in June, those who pay the regular membership fee at such meetings, do so from one to two months before the beginning of the journal-year, for which they pay For example, those who paid their dues at the meeting in Cleveland, in June, 1883, and subsequently for that year, received the JOURNAL from the first of July 1883, to the last of June 1884, embracing volumes one and two complete Those who paid their dues in Washington in May, 1884, and subsequently for that year, were entitled to the JOURNAL from July 1st, 1884, to June 30th, 1885, embracing volumes three and four complete In like manner, those who paid their dues at the meeting in New Orleans, in May, 1885, and subsequently for that year, are entitled to, and will receive the JOURNAL from July 1st, 1885, to June 30th, 1886, embracing volumes five and six But as the new members who are added at each annual meeting rarely have these facts clearly in mind, and are apt to become impatient, if they do not begin to receive the JOURNAL very soon after they become members, we have made it a rule to commence supplying them as soon as we receive their names from the Treasurer They thereby receive from four to six of the last numbers of the current incomplete volume, gratuitously, before the commencement of their own journal-year

In the past year, some of those who received the last few numbers of the unfinished volume, desired to complete it, by obtaining all back to the first of January, and paying for the additional half-year, $2 50 We could accommodate a limited number in the same way this year, if it should be desired Subscribers who are not members of the Association can commence taking the JOURNAL at any time they choose, but if they desire complete volumes, they should make their subscriptions commence either on the 1st of July, or the 1st of January

DEATH OF DR WILLIAM T WRAGG, OF CHARLESTON, S CAROLINA

We learn from a recent number of the *News and Courier*, of Charleston, that the funeral of DR WILLIAM T WRAGG, one of the oldest and most respected of the physicians of that city, took place on the 1st day of the present month, June 1st, 1885 We have not only known Dr Wragg by reputation as a prominent and active practitioner, a contributor to medical literature, and an enlightened citizen but we enjoyed the cordial hospitality of himself and family during the week that the Amercan Medical Association held its annual meeting in that city, in May, 1851 Hence the news of his death brought more than the usual feeling of sadness, accompanying the departure of one of the older and more honorable members of our profession, it left rather the impress, that a personal friend and brother had given us the last farewell

NITRITE OF AMYL IN GOUT

DR ARCHIBALD D MACDONALD, of Liverpool, raises a very important question in the *British Medical Journal*, of May 23, as to the elimination of uric acid by nitrite of amyl On three occasions he has noticed that the administration of nitrite of amyl markedly increased the acidity of the urine, and caused a deposit of uric acid crystals. The first case was one of puerperal eclampsia, in which the drug was given to control the convulsions; the second was a control experiment, in which the administration of the drug caused a marked increase of the uric acid in the urine of a healthy man; and the third was one of gout, which was much benefitted by three administrations, and with the result that the uric acid was very much increased.

The three cases recorded by Dr Macdonald are sufficient basis for some careful physiological work, in which to investigate the action of nitrite of amyl on the elimination of uric acid, and for further clinical experimentation as to its true value in cases of gout. In his case the drug was administered in four minim doses, by inhalation, at 4, 6, 8 and 10 P. M., the result being as recorded on the next morning.

SOCIETY PROCEEDINGS

OHIO STATE MEDICAL SOCIETY

Fortieth Annual Session held at Dayton, June 3d, 4th, and 5th, 1885.

WEDNESDAY, JUNE 3D, FIRST DAY

The Session was opened with prayer, by Rev. Mr. Hall.

Dr. W. J. Conklin, President of the Montgomery County Medical Society, delivered the

ADDRESS OF WELCOME.

He asked the members to beware of medical politics, and not allow it to push out scientific papers as had been the case on a former occasion.

Dr. J. M. Weaver, Chairman of the Committee of Arrangements, informed the Society that every object of interest in about the city, among them the Insane Asylum and the National Soldiers Home, was thrown open to them.

The Secretary reported a membership of 567, also that Dr. J. P. Thompson, who had recently died in his 83d year, donated his set of reports to the Society. This is the only complete set of reports in existence, and it has long been the desire of the Society to secure such a set.

Dr. J. F. Baldwin, Chairman of the Special Committee, to secure the passage of a

STATE BOARD OF MEDICAL EXAMINERS'

Bill, reported no progress. He enumerated three Society Medical Colleges and journals who had opposed the Bill, but thought the most potent factor against it was the physicians in the House of Representatives. The measure was defeated by two or three votes in the Senate. The Committee recommended that in the future the Society endeavor to prevent the election of physicians to the Legislature.

The report from the Committee on the

COLLECTIVE INVESTIGATION OF DISEASE

asked a more representative committee to be appointed, one member was added from each county.

Dr. Herrick, Chairman of the Committee on Legislation, reported that no

BILLS RESTRICTING THE PRACTICE OF MEDICINE

would be entertained by the Legislature, hence we must confine our requests to the improvement of sanitation.

Dr. C. A. L. Reed, of Hamilton, read a paper on

PELVIC HÆMATOCELE.

He thought there was a great deal of fiction in the common remark, there is no danger from the puncture of a trocar. He favored the evacuation of the coagula early. After discussing the subject from its various bearings and reporting several cases, he closed with the following conclusions:

1. The demands of science and humanity call for some means of controlling the initial hemorrhage in these cases.
2. The operation by incision along Poupart's ligament and the elevation of the peritoneum is a valuable procedure in cases in which the accumulation lies beneath the broad ligament.

Dr. Miller, of Cleveland, thought the incision should be made at that point where the best drainage could be obtained. The history of these cases is that nature takes care of the majority of them if the extravasation of blood is not too great. He does not believe in either hurrying or delaying the operation. What might be death in one case would be life in another. In some cases no operation should be undertaken at all.

Dr. Herrick did not believe in operating for evacuation.

Dr. John Carson, of Middletown, was in favor of operating early.

Dr. Reed in closing said: In view of extremely probable septic poisoning and its train of troubles, are we not justified in some simple expedient controlling the initial hemorrhage? This can be done by simple ligation of the vessels which lie beneath the broad ligament. This is not the serious operation it has been pictured here this evening.

Dr. C. D. Palmer of Cincinnati, reported a

RARE COMPLICATION AFTER OVARIOTOMY.

Miss ———, of German descent, a blonde of delicate organization, noticed an abdominal swelling at the age of nineteen, three and half years ago; this swelling was central, regular and uniform. Two physicians whom she consulted pronounced her trouble Bright's disease, and tapped her, after which operation the abdomen collapsed. The fluid again collected, and she applied at one of the hospitals for relief. The same diagnosis was again made, and the same operation performed. Some time afterwards another physician tapped her a third time, and this was repeated until she had been tapped eight times. The last physician to whom she applied, Dr. John Kellar, suspecting the true nature of the trouble, asked the reader of the paper to see the patient with him. The abdomen was found to be immensely distended, and fluctuation distinct, superficial and uniform, with dullness extending backwards to an unusual degree; lateral decubitus showed a slight change in the area of the dullness. There was no fluctuation in the posterior cul de sac. The patient was very anæmic and feeble, with pulse 120—130, febrile movement every evening. She had not menstruated for six months. The lower extremities were swollen and œdematous, but there was no albumen in the urine. The diagnosis of unilocular ovarian cyst was made, but in view of the former diagnosis, and the fact that there were some obscure history and physical signs, an exploratory incision was made, which fully confirmed the second diagnosis. Both the general condition of the patient and the surroundings were very unfavorable for operation. The cyst wall was found closely adherent in all directions to the abdominal parietes. When the adhesions had been broken up as far as possible with the fingers, a large quantity of fluid commenced to flow through the abdominal opening. For the moment this was supposed to be ascitic fluid, and the patient was turned on her side to aid in its evacuation. But the true source from which it came was found to be two lacerated fringe-like openings into the cyst, which were directly opposite to cicatrices in the abdominal walls, and had been made by the repeated tappings. Through this some of the cystic fluid had doubtless flowed into the peritoneal cavity after some of the tappings, but its edges had been subsequently agglutinated by peritoneal adhesions to the abdominal walls. Two other smaller openings of this kind were found. They were clamped with hæmostatic forceps, and the largest plugged with a large sized ovariotomy trocar, through which the cyst was drained. The cyst was detached from the abdominal walls when it was almost empty. The adhesions were short, thick, firm, numerous, and universal over the whole anterior and lateral abdominal walls, omentum, lower border of the stomach, and to a limited extent over the colon.

The pedicle to the right ovary was transfixed, and cut off about one inch from the seat of ligation, after which a wedge-shaped section was cut out of the fore end and the peritoneal edges were sewed together by a continuous stitch of catgut. This was the author's manner of dealing with the pedicle in his last five ovariotomies, all of which terminated successfully; it possesses advantages against secondary hemorrhage and septic absorption. Oozing was controlled, and the peritoneal cavity cleaned of all fluids. The abdominal cavity was closed with silk sutures without a drainage tube. Strength was sustained by brandy hypodermically.

The operation left the patient in a very bad condition, but she began immediately to improve. Fearing vomiting, all food was given per rectum. A low form of peritonitis occurred during the first week, attended with tympanites and dyspnœa, pulse, 140, temperature, 103° to 104° F. On the eighth day, a fatal result seeming imminent, two stitches were removed and a rubber tube inserted, removing eight to ten ounces of fetid serum. The temperature fell three degrees in two hours, and all other bad symptoms improved accordingly. Convalescence a few days later seemed established, and recovery seemed certain, when another complication appeared. On the twelfth day a smell of gas with a fecal odor was noticed at the opening made into the abdominal cavity. The next morning a small amount of fecal matter was seen and removed. A fecal fistula had formed. It seemed to communicate inwardly with the lower small intestine, and the external opening presented midway between the umbilicus and symphysis pubis. At first it discharged daily several ounces of fecal matter, and has continued to discharge since in quantities gradually diminishing and less offensive. The present quantity averages daily two or three teaspoonfuls. For two months the recovery has been complete, except for the fecal fistula. It is possible that this may close spontaneously. No treatment for the fistula has been undertaken, except the regulation of the diet and the use of a compress; surgical interference may yet be needful.

The occurrence of this fecal fistula is one of interest and rarity. It is a question how this one appeared. The most reasonable and plausible explanation would be that the intestinal perforation resulted from softening from the peritonitis. The septic fluid remaining would have certainly led to a fatal termination had not the peritoneal cavity been opened when it was. Baker Brown, in "Ovarian Dropsy," gives examples of avenues for the escape of ovarian cystic fluid. Instances of fecal fistula are given by Milner Moore (*The Lancet*, 1880, vol. i, p. 329), Bantock (*The Lancet*, 1879, vol. i, p. 207). Atlee, Peaslee, Simpson, Barnes, Thomas, Emmet, Goodell and Tait make no mention of any case. Spencer Wells mentions three cases, one his own, the only one in his one thousand reported ovariotomies. Mr. Bryant ("Guy's Hospital Reports," vol. xiv, p. 228), Pouchin and Kufferath (*Belgian Med. Press*, 1880, vol. xxxi, p. 217), and Kuswein (*Centralblatt fur Chirurgie*, 1879, p. 630) report cases. It is remarkable that such perforations do not occur more frequently. This may also be said of lacerations of the intestinal tube. The tumor is often adherent to these parts, and separated only with the greatest patience and skill. Bantock and Barnes (*The Lancet*, 1877, vol. ii.) report such cases. Considering the facts, the author asked, is it not possible that lacerations and perforations are more common than is supposed?

DR. DUNLAP, of Springfield, opened the discussion on Dr. Palmer's paper, and reported two cases which had occurred in his practice. In one case the fistula occurred on the 3d week and continued for 6 weeks. The patient made a perfect recovery.

DR. DILLON, of Cleveland, thought Dr. Palmer's case would recover entirely. He had had one case which opened on the 14th day and remained open 3 months. The patient recovered and married. Both ovaries are in the doctor's office, yet she menstruates regularly.

DR. PALMER, in closing, said that most of these cases close within one year. Should this case not close would it be advisable to make an operation to close it? This is a most difficult operation, the fistula being surrounded by some very vascular tissue, and the operation has been followed by fatal results. It should not be made unless positively necessary.

THURSDAY, JUNE 4TH, SECOND DAY

AN AMENDMENT TO THE CONSTITUTION

was offered, allowing physicians to become candidates who are not members of any local society, provided there is no society in the county in which they reside. The argument was brought that there were eighteen counties in the state which contained no local society. The amendment was rejected.

Some discussion on politics was then indulged in, the subject being the bill for

A STATE BOARD OF MEDICAL EXAMINERS,

which was defeated last year by but three votes in the Senate.

DR. FRANKLIN moved that $500 be appropriated to defray the expenses of pushing the bill through. He said money was what was needed, and $500 was the amount. He had been a member of the Legislature, and knew whereof he spoke.

DR. R. HARVEY REED, of Mansfield, read a paper on

VITILIGO

This cutaneous disease is described by Prof. Duhring as an acquired disease, consisting of one or more sharply defined, rounded or irregular shaped, variously sized and distributed smooth whitish spots, whose borders usually show an increase in the normal amount of pigmentation. In an analysis of 11,000 cases of skin disease, Dr. McCall Anderson only met with four cases. It is not confined to either sex, but is probably more frequent in early adult life. The pathologists tell us that there is an increase of pigment over the body, but in the author's experience it seems to prefer the hands, neck, face and head. Microscopically it is found that in the one instance there is a remarkable increase of coloring matter of the skin, which gives rise to the peculiar mottled or spotted appearance of that part. All authors agree in a favorable prognosis. It is usually easily distinguished from morphœa, chloasma, tinea, versicolor and lentigo. The author here gave in detail the differential diagnosis of this affection from those named.

Treatment, in his hands, has been very unsatisfactory. The use of internal remedies is only valuable when the system is out of order. In the generally prevailing belief that vitiligo is a nervous affection, he has used the hypophosphates combined with strychnia internally. This was associated with friction, frequent bathing, together with stimulating lotions or ointments, such as the bichloride of mercury and rose water, but none of these were followed with beneficial results. The only remedy giving any apparent benefit was electricity used twice a week, one pole applied to the nape of the neck, the other brushing the parts affected. He then reported five cases in detail. If this disease is a nervous affection, it is certainly located somewhere in the great sympathetic system, and by some disturbing it interferes with the blood in the distribution of pigment to certain parts of the derma. In all the cases reported, save one, it seems to have begun in the right side; in the exception it was not known where it commenced. The reader thinks that the cause is situated solely in the nervous system. There is a possibility that a primary cause may exist in the capillaries themselves, or in that part of the derma in which the pigment is deposited. Until there is more light thrown upon this interesting subject, which the author hoped his paper would draw out, and a definite knowledge obtained in regard to its exact pathology by practical demonstration, the reader will continue to believe it to be a purely nervous disease.

DR. DAN MILLIKIN, of Hamilton, read a paper on

EMPYEMA; ITS TREATMENT BY DAILY ASPIRATION THROUGH A DRAINAGE-TUBE

He reported the case of a patient who had typhoid fever followed by pneumonia, which ran into pleuro-pneumonia; the left pleural cavity was left full of pus. Dr. Millikin aspirated and drew off a quantity of very offensive pus, and this was followed by a daily withdrawal of pus until the patient complained of tightness or oppression about the chest, or pain, when a quantity of antiseptic fluid was thrown into the cavity. Fluid was withdrawn and injected at each sitting until it returned clear, and it was so thoroughly withdrawn at the end of each sitting that the patient was left in some slight distress. Recovery was rapid and complete.

A second case was that of a patient far advanced in tuberculosis, who developed a purulent pleurisy. He died, but long before death the pleural cavity had healed completely under the daily aspiration through the drainage tube.

Other things being equal, a small hole in the chest is better than a large one, and one hole is better than two. Unless it is positively indicated, the writer does not think that it is right to attack a rib. By the method indicated the pus flows only when the physician is present; in this way the clothing is kept clean. After each sitting the tube is closed by the pincette forceps, and then secured by adhesive plaster flat to the side of the chest, which make a valvular entrance. There is no danger of the tube slipping into the chest. The aspirator makes the operator master of all degrees of tension or vacuum; so, also, the lung on the opposite side is subjected to a daily stretching. The reader said that it was his object to leave his patients with a partial vacuum, which persists to an appreciable extent for almost an hour. This is a valuable kind of movement cure for the lung itself. If the lung cannot expand the lung must collapse. This is also favored by the partial vacuum. The mediastinal boundary between the pleural cavities also forms a convexity towards the affected side, and thus allows the active lung more room for expansion. The aspirator causes drainage without regard to gravity. A free opening cannot draw pus out of a pocket.

DR. P. S. CONNOR, of Cincinnati, said that he had seen aspiration fail, just as he had seen it succeed. He had seen patients grow worse after repeated aspiration, and then recover under free drainage.

DR. JOSEPH RANSOHOFF, of Cincinnati, said that he had altogether discontinued the use of aspiration in the treatment of empyema. All of the patients on whom he used aspiration died when they were tuberculous. He thought that early free incisions would cure most cases of empyema.

Dr Kinzman, of Columbus, spoke in favor of free incisions, which should be made as soon as it was evident that the effusion was purulent

Dr P S Connor, of Cincinnati, read a paper on

VESICAL EXPLORATIONS

Morbid conditions of the bladder, he said, may or may not be easily diagnosticated Endoscopic examinations, for which so much was claimed at one time, have proved to be of little value They are, however, much more satisfactory in the female than in the male He considered the various modes of exploration, which should be supplemented by urinalysis, and chemical and microscopical examinations

Digital examination, systematized by Sir Henry Thompson, affords information of the highest value By the ordinary perineal section the membranous portion of the urethra is opened, the prostatic portion of the canal is dilated, and the finger tips can be brought in contact with every part of the bladder, the mucous surface can be palpated, its irregularities noted, the presence, location, size and character of a growth ascertained, and a concealed foreign body or a stone in the lower portion of the urethra found In a recent case under his care the bladder was as thoroughly explored as though done *post mortem* The objection that this operation is not successful in fleshy patients the reader thought unfounded In every case, however fleshy, the finger can be introduced into the bladder, and made to sweep its surface The operation is a simple one, requiring only the ordinary external perineal urethrotomy upon a grooved staff It is almost devoid of danger

Guyon and certain French surgeons advocate supra pubic operations rather than the perineal section The danger in the perineal section is not greater, and the advantage of exploration much greater For every reason, both as respects diagnosis and treatment, digital exploration should always be made when the other more ordinary and longer practiced methods of examination have proved insufficient In very young children lateral rather than median urethrotomy should be done, since such an operation does not increase the danger to life, and relieves the surgeon of the trouble, at times quite considerable, of dilating the prostatic portion of the canal

Dr Holland, of Cincinnati, in discussing the paper, spoke of rectal exploration particularly He recommended the use of Syme's speculum of a large size He thought perineal section simply for diagnosis a bold procedure, especially in private practice

Dr Ransohoff reported a case in which he did the operation He spoke in its favor, and also discussed rectal examination

Dr Connor said that in many cases we are left entirely in the dark, and cannot make a diagnosis He has made the operation about 100 times, and in no case could the death be attributed to it He himself would much prefer being subjected to the operation than to be drugged, as many are He has been much surprised to find with what ease the bladder can be explored after this operation, fully as completely as *post mortem*

(To be concluded)

FOREIGN CORRESPONDENCE

LETTER FROM BERLIN

(FROM OUR OWN CORRESPONDENT)

CHOLERA NOTES

Of great interest just now, especially after the startling array at Munich of Koch's theories, I transcribe some notes from a paper on this subject by Edgar March Crookshank, M B, of King's College Hospital, London, who has been working up the matter under the very eye of Dr Babes himself, who, next to Koch, is the best authority in Germany "The last link in the chain of evidence required to establish the essential rôle of the cholera bacillus in the etiology of cholera is the effect of its inoculation in experimental animals Nicati, Rietsch, Koch, Ermengen and Babes have inoculated the bacilli in the duodenum with success Babes had three satisfactory cases out of six The operations were performed with all practical antiseptic precautions, and the appearance of the guinea-pig after death showed changes similar to those produced by cholera in the human subject, without any trace of peritonitis or putrid infection From the mucus flakes and intestinal contents pure cultivations of the typical bacilli were obtained Quite recently, Koch has introduced a method of inoculation without producing any external lesion, and the results have been successful in a great number of animals My observations extended, however, to the examination of the intestinal tissue The researches of Koch and others have shown that lesions always exist in the intestines, more or less, in all cases of cholera A great part of the epithelium is missing, the superficial tissue is necrosed, the glands dilated and their epithelium swollen up, a great formation of mucus takes place, and a multiplication in the nuclei masses The bacilli are found in the necrosed tissue, in the glands, and sometimes in the inflamed tissue more deeply situated In the internal organs, especially in chronic cases, round or oval bacteria are sometimes found, which may be pathogenic (Babes), but they are not altogether characteristic of cholera, and are to be considered as a septic or pyæmic complication

"From these researches we may conclude 1 That the cholera bacillus of Koch is absolutely characteristic of Asiatic cholera 2 That it is possible to demonstrate the presence of the bacillus in the tissues 3 That there is every reason to believe, from recent results obtained by the inoculation of a pure culture of the bacillus in the lower animals, that it is productive of the disease

"For we have seen that no one has found an organism which is identical with the comma bacillus of Koch in every respect Again, if it has not been possible to demonstrate the bacillus in the tissue, we can only conclude that it is through an insufficient knowledge of the particular methods required, or that an insufficient search has been made The method successfully employed by Babes consists in making very thin sections in recent cases of cholera and as soon as possible after death, and above all, from the vicinity of Peyer's patches For their coloration an aqueous solution of fuchsin is employed (fabrique de Babe) The sections are left in this for 24 hours, then washed in sublimate solution (1–1000), rapidly passed through alcohol and oil of cloves, dried by pressure with four folds of filter paper after removal to the slide, and preserved in Canada balsam I myself, quite recently, have stained and mounted sections after this method from material for which I am indebted to Dr Babes, and have shown the presence of the bacilli in the tissue in vast numbers" At the recent meeting of the Cholera Conference Koch greatly enhanced the value of his researches, and has shown some astonishing results of inoculation, after first dosing the animal with opium

At this conference Koch maintained his ground that the comma bacillus was *only* found in Asiatic cholera, Finkler, Prior, Klein, and Emmerich to the contrary notwithstanding He showed slides prepared from the intestines of 79 different persons who died of cholera in Calcutta, and then demonstrated a series of pure cultures from France, Italy and Germany, all of which had the same characteristics Experiments on animals and pure cultures all went to show that the comma bacillus was unlike any other bacillus, and that it was only found in true cholera His experiments were made upon young pigs, and, to use his own words "They received 5 ccm of a 5 per cent solution, and nty minutes thereafter 10 ccm of meat infusion ing comma bacilli were injected into the stom Immediately after this opium tincture (1 ccm a 200 gram animal) was injected into the peritoneal cavity" The animals remained narcotized from one-half to one hour They died in from one to three days Eighty-five pigs in all were experimented upon, and every scientific precaution was taken Out of 150 doctors who studied at different times in his laboratory, only one had choleraic symptoms Bacilli were found in his dejections, and a series of pure cultures were made from the case

Prof v Pettenkofer did not think that Koch's experiments were at all convincing, and that they were not as satisfactory as Emmerich's investigations upon the Naples bacillus Neither had Koch thrown any light at all upon the manner in which cholera invades human beings Von Pettenkofer cannot believe that the comma bacillus is the cause of Asiatic cholera, but that it is an accidental product of the cholera process So far, then, all that can be claimed with scientific accuracy is that the comma bacillus is distinctive, that it is unlike any other bacillus, that it is always found in Asiatic cholera, that it has been found in the mucous membrane of the intestines, and that animals inoculated with pure cultures have died with every symptom of true cholera—the comma bacilli were found in the intestines of the animal thus dying The observations of Watson Cheyne (Path Trans, Vol xxx), and of F W Zahn (*Virchow's Arch*, Vol xcv), show that in the healthy and normal state "the blood and tissues contain no micro-organisms whatever, and that the assertions to the contrary are due to error in the experiment, *i e*, to accidental contamination Consequently, it cannot be maintained that if in any focus of disintegration micro-organisms make their appearance, they are derived from those normally present, we must, on the contrary, believe that putrefactive organisms can be imported from parts connected with the outer world into distant localities in which disorganization of tissue has taken place" (Klein, "Micro Organisms and Disease")

Ceci believes in the existence of spores arising from the decomposition of the bacilli Crookshank and Babes have examined over one hundred pure cultures of the comma-bacillus of Koch, of various ages and in various media The round bodies frequently found, either alone or accompanying filamentous and irregular spirilli form developments of the comma bacillus, were found in all cases to be perfectly sterile Babes has pointed out the diverse forms which result from cultivation under various degrees of temperature and altered soil Klein's very recent assertions before the British Medical Association are bereft of every particle of strength in the light of Koch's report to the Berlin Cholera Conference (just ended) I have seen animals die from cholera Asiatica which had been inoculated with a pure culture taken from a patient who died with the disease in Paris From the intestine of the animal a culture was made, and another animal inoculated, which also died

The one *vital* question now is, the relation of this comma bacillus to the essence of Asiatic cholera Is this organism itself the *virus*, or is the latter a product of the former? Klein propounds two possible theories (a) It is possible that the chemical effects are produced by the presence and growth of these organisms, as truly as in the alcoholic fermentation of sugar the alcohol produced is a result of the presence of the saccharomyces, (b) But it is likewise possible that the organism elaborates a specific ferment, which, after a certain amount has been produced, sets up the putrefactive pathological changes

The exact rôle of the comma bacillus in the etiology of cholera Asiatica remains unsettled Arguments for and against the conclusions of Koch are perhaps equally strong on both sides, as evidenced by the discussions in the conferences on cholera held in Berlin, Munich and London Inoculation, which completes the chain of evidence required to make good Koch's case, has, in his hands and in those of Nicati, Rietsch, Ermengen, Babes and Watson Cheyne produced positive results, while in the hands of Klein and others no effect whatever was produced In Babes' case three guinea pigs out of six inoculated in the duodenum showed the pathological lesions of cholera, and pure cultivations of the comma-bacilli were obtained from the intestinal contents Klein and Gibbes, the English commissioners, have denied the existence of the cholera bacillus in the intestinal tissues These have been demonstrated, on the other hand, by Babes, and confirmed by Crookshank, by staining the sections by Babes' method This consists in cutting very thin sections in close proximity to a Peyer's patch, placing them in an aqueous solution of good fuchsin for 24 hours, washing in sublimate (1–1000), passing rapidly through alcohol and oil of cloves, drying well by pressure of filter paper folded four times, and mounting in Canada balsam

As affording a practical means for the differential diagnosis of true cholera, it cannot be too strongly insisted that whether or not the *causa causans* of the disease, the presence of Koch's bacillus is, nevertheless, absolutely pathognomonic of Asiatic cholera In its biological characteristics it differs from all other curved bacilli

H R B

DOMESTIC CORRESPONDENCE

OPEN AIR TREATMENT OF DIPHTHERIA

Editor Journal American Medical Association

Dear Sir—The mortality among young children by diphtheria in this part of the country under all methods of practice has been great, and my observations have impressed me with the belief that this is largely due to the custom of confining such victims in close apartments, and compelling them to inhale the air already polluted by their exhalations The prevalence of croupal symptoms in many of the fatal cases prejudices the people against the admission of any fresh air, frequently keeping the little patients in small improvised tents within a closed apartment, with elevated temperature, and saturated with vapor It seems to me under such circumstances the contagion must of necessity find its way into the air passages so constantly, and so concentrated, that new inoculation of deep seated tissues results The fear that the child will *take cold* is so strong that I have with difficulty been able to induce parents to adopt my plan of *open air treatment*

I believe that the system in cases of diphtheria of a grave form, is so preoccupied by the presence of that poison that it is less likely to be affected by atmospheric vicissitudes than in health, and that they *cannot take cold* Croup is more likely to occur by extension by continuity, and by inhaling a polluted atmosphere, than by pure air, however cold or damp Three years ago I commenced treating severe cases by insisting on having the children kept out of doors, although it was mid-winter and in the presence of snow storms I found some parents courageous enough to follow my instructions, and recovery followed in all the cases so treated, although some of them were malignant and desperate

The medical part of the treatment was antiseptic, stimulating, and supporting throughout, generally using local applications to the fauces of diluted chlorine water, with compound tincture of iodine added, giving internally drop doses frequently of a mixture of glycerine two parts, and pure carbolic acid and compound tincture of iodine one part each I have recently seen a case of a young child in consultation with Dr John Morris, of this city, in which prognosis was a fatal termination The parents, however, obeyed directions, keeping the child in its carriage in the open country during the daytime, and at night *every window* of the house *wide* open Recovery followed speedily I am at the present time treating a child in the same locality who was taken down a week ago with a very grave form of the disease, accompanied by a livid rash over the body, and this child is convalescing He has been kept all the time on the open back piazza, and only taken into the open house when it stormed The medical treatment in this case was as stated above, with the addition of salicylate of cinchonidia, wine and generous diet Drop doses of the antiseptic were given every hour The prone position was maintained in this case and in all of my cases, as much of the time as possible, and I would strongly urge upon medical attendants to insist on that position being maintained in children where the throat affection is severe, in order to prevent the exudations from gravitating during sleep into the deeper parts of the throat and infecting the larynx If the prone position is perseveringly maintained, these exudations and discharges will gravitate constantly away from the throat towards the mouth and lips, and escape

In closely built districts some difficulty may be encountered in finding a place out of doors for a bed The roof of the house might in some cases be utilized, sheltering the bed by an improvised tent, but when possible, I contend that the patient should be constantly in the open air Once conquer this dread of taking cold, and I think quite as much, if not more, may be accomplished in combating this disease by exposure than by medicine

I hope you may find space for this desultory communication in your valuable Journal, for I earnestly believe many lives may be saved by resorting to this principle of treatment

R B Bontecou, M D

68 4th St , Troy, N Y , June 5, 1885

BOOK REVIEWS

The Elements of Physiological Physics An Outline of the Elementary Facts, Principles, and Methods of Physics, and their Applications in Physiology By J M Gregor-Robertson, M A , M B C M , Muirhead Demonstrator of Physiology, and Assistant to the Professor of Physiology in the University of Glasgow Sm 8vo , pp-xii, 528 219 engravings on wood Philadelphia Henry C Lea's Son & Co , 1884 Chicago Jansen, McClurg & Co

This book is one of the series of Manuals for Students issued during the past year by the well known publishers It is intended as a companion to the student of physiology in his practical work in the laboratory The first part is devoted to a consideration and explanation of the applications of Electricity and Magnetism to physiology and medicine, and embraces 148 pages In the second part the Graphic Method is described, showing how small intervals of time are measured, explaining the myographion, and the transmission of movement The third part is concerned with Fluids, at rest and in motion, and the Mechanics of the Circulation, Pneumatics are explained in part IV, Optics in the fifth part, and Sound, Heat and Dynamics in the sixth, seventh and eighth parts The illustrations are almost entirely of the necessary apparatus for the physiological laboratory, and, considering their diminutive size, are good The author has not written a great book, nor was such his attempt, but it will be found a most useful companion to the student of practical physiology The copious index necessary for a work of this character has not been omitted

Modern Medical Therapeutics, A Compendium of Recent Formulæ and Specific Therapeutical Directions, from the Practice of Eminent Contemporary Physicians, American and Foreign By George H Napheys, A M , M D , etc Edited by Joseph F Edwards, M D , and D G Brinton, M D Eighth Edition, Enlarged and Revised, 8vo pp xv, 629 Philadelphia D G Brinton 1885 Chicago Jansen, McClurg & Co

The appearance of an eighth edition of a work, whether a compilation or an original treatise is sufficient proof of its merits We always regret the appearance of a book which is intended to take the place of a certain amount of necessary study or which depends for its success on the supposed laziness of the student or practitioner The book under consideration, however, does not come under this class It has evidently been prepared with the presupposition that the reader has studied medicine so far that he may understand the therapeutic directions given therein, and if he has, its use as a reference book will be of much service It is properly classified and indexed

ASSOCIATION ITEMS

OFFICIAL

Committee of the American Medical Association on International Medical Congress

The committee as constituted by resolutions passed at New Orleans will meet at the *Palmer House*, Chicago, Ill , at 12 o'clock M on Wednesday, June 24, 1885

Your attendance is respectfully solicited

R Beverley Cole,
Temporary Chairman

John V Shoemaker,
Temporary Secretary

MISCELLANEOUS

Cholera in Madrid —A dispatch from Madrid of June 10, states that the Guardia Civile have evacuated their barracks owing to the breaking out of cholera There were seven cases of cholera in Valencia on June 9 All persons arriving in Valencia by sea are subjected to three days' observation, and all persons wishing to leave the city must show a properly attested certificate of good health- All persons arriving from towns where there are cases of cholera are promptly sent to the lazarettos Already special wards in the hospitals have been assigned for suspected cases of cholera, and the authorities are visiting the poorer quarters of the city for the purpose of disinfecting the houses

A Chair of Clinical Therapeutics in King's College, London —The *British Medical Journal* says The Council of King's College have taken a new departure of considerable interest by creating a new Chair of Clinical Therapeutics, to which Dr Burney Yeo, physician to the hospital, was elected professor We think the College is to be congratulated upon taking a step which is of considerable practical interest to scientific teaching The new chair is calculated to meet a want which, undoubtedly, is often felt in our medical schools, by affording opportunities for the examination and discussion with the pupils of important questions of a practical kind, bearing upon the treatment of disease

Boric Acid as a Preventive of Mammary Abscess —Ressein ("Bull gen de therap"), in a thesis on the use of antiseptics during lactation says that, if any excoriation is detected, however slight, it should be dressed at once with a solution of boric acid (1 to 30) applied on a compress the latter being covered with rubber cloth to prevent evaporation The breast is to be carefully supported by means of proper bandages Boric acid is preferred to other antiseptics because of its having no odor and not being poisonous —*N Y Med Jour* , May 23, 1885

Cholera in Spain —The cholera scourge which has been apparently slowly spreading in the province of Valencia, has also broken out in Castellon de la Plana, and in Madrid In the latter city it is claimed that eleven cases and two deaths have occurred It is reported that the ship Jupiter has sailed from Valencia, Spain, where the disease is epidemic, bound for Baltimore Md

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department U S Army from May 29 1885, to June 5 1885

Maj S M Horton, Surgeon, ordered for duty as Post Surgeon, Fort Riley, Kan

Maj P J A Cleary, Surgeon ordered for duty as Post Surgeon, Fort Lyon, Col (S O 78, Dept Mo , June 1, 1885)

Maj J M Brown, Surgeon, assigned to duty as Post Surgeon at Fort Omaha, Neb

Capt Louis Brechemin, Assistant Surgeon, relieved from duty at Fort Omaha, Neb and assigned to duty as Post Surgeon at Fort D A Russell, Wyo (S O 49, Dept Platte, May 29, 1885)

Capt I C Ainsworth, Assistant Surgeon, (Dept Texas) ordered for temporary duty in Dept Mo (S O 58, Dept Tex May 25, 1885)

Capt Jos Y Porter, Assistant Surgeon, granted leave of absence for six months, on account of disability (S O 126 A G O , June 3, 1885)

Capt Wm B Davis, Assistant Surgeon, granted leave of absence for one month, from May 25, 1885 (S O 122, A G O , May 28, 1885)

First Lieut R J Robertson, Assistant Surgeon, leave of absence extended one month (S O 123, A G O , May 29, 1885)

Official List of Changes of Stations and Duties of Medical Officers of the U S Marine Hospital Service for the Week Ended June 6, 1885

Walter Wyman, Surgeon, to inspect unserviceable property at Baltimore, Md , June 6, 1885

H R Carter, Passed Assistant Surgeon, to inspect unserviceable property at San Francisco, Cal , June 6, 1885

R P Battle, Assistant Surgeon, to inspect unserviceable property at New Orleans, La , June 6, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol IV	CHICAGO, JUNE 20, 1885	No 25

ORIGINAL ARTICLES

ON THE DIFFERENTIATION, BY MEANS OF THE PITCH OF SOUND, OF PULMONARY SIGNS OBTAINED BY AUSCULTATION AND PERCUSSION[1]

BY AUSTIN FLINT, SR, M D
OF NEW YORK

This paper is intended to be a supplement to an essay "On Variations of Pitch in Percussion and Respiratory Sounds, and their application to Physical Diagnosis," to which was awarded a prize by the American Medical Association in 1852[2] The introduction to that essay was as follows "Very little attention has hitherto been paid to variations in the pitch of the sounds heard in the practice of percussion and pulmonary auscultation The sibilant and sonorous rales, it is true, are distinguished from each other chiefly by a contrast in pitch, but as respects the remainder of the physical signs pertaining to pulmonary disease, they appear not to have been much studied in this aspect, and even the facts that have arrested notice do not seem to have been applied, save in a very limited degree, to physical diagnosis By most writers on physical exploration, pitch modifications, except in the sibilant and sonorous rales, are not recognized, no allusion whatever being made to them[3]

In the second edition of the able and comprehensive work by Dr Walshe, of London, recently republished in this country, the subject is noticed more distinctly than by any other author with whose writings I am acquainted Dr Walshe enumerates among the elements involved in the different modifications of respiratory sounds in health and disease, variations in pitch, he also mentions several important facts with respect to these variations But he apparently loses sight of their practical applications, making no reference to them in connection with the diagnosis of individual thoracic diseases Barth and Roger state, as briefly as possible, that the bronchial respiration is higher in pitch than the cavernous But, in general, as just remarked, nothing is to be found relating to this subject in standard treatises on auscultation and percussion[1]

A single additional remark by way of introduction The pitch modifications of sound, as before intimated, opening a field of study in physical exploration as yet but little cultivated, and to which, so far as relates especially to auscultation, my attention has been but recently directed, propriety and prudence dictate, not only caution in drawing deductions from a number of data somewhat limited, but a certain amount of distrust in a kind of observation in which the liability to error cannot be at once fully estimated In view of these considerations, the conclusions which I shall present, are advanced as propositions to be confirmed by further researches, the object of this paper being, in a great measure, to invite the investigations of others in the same direction" The essay from which these extracts are taken, embraced the results of clinical studies in relation to the variations in pitch of the sounds obtained by percussion and auscultation In these studies, the analytical method was pursued, that is, observations in health subjects and in cases of disease were recorded, and the records analysed The diseases studied with reference to the pitch of sound, were pneumonia, pleurisy, pulmonary gangrene, pneumo thorax, and phthisis in the different degrees and stages of this [illegible]fection Abridged histories of the cases of disease which were recorded and analysed, are contained [illegible] an appendix to the essay

My interest in the clinical study of variatio[illegible] the pitch of sound did not end with the public[illegible] thirty-three years ago, of the prize essay The [illegible]clusions at that time presented with diffidence [illegible] confirmed by further study, and, together with [illegible]tional conclusions, were submitted to the pr[illegible] in my work on "Physical Exploration and th[illegible]nosis of Diseases affecting the Respiratory [illegible] published in 1856, (1st Edition) and in [illegible] publications My object in this supplement [illegible] is to give a statement of the differential [illegible] derived from the pitch of sound, in the [illegible]tained by auscultation and percussion [illegible], the respiratory system, especially in [illegible] edge of these characters has originated [illegible] own studies, and to inquire how far the results of my studies are, at the present time, accepted by clinical observers

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[1] Read in the Section of Practical Medicine Materia Medica and Physiology at the Thirty Sixth Annual Meeting of the American Medical Association

[2] Vide the Transactions of the American Medical Association for 1852 Vol V

[3] The vocal sign ægophony should perhaps be excepted

[1] In connection with this statement it is proper [illegible] to which it applies The works consulted are as [illegible] edited by Forbes Walshe on the Heart and Lu[illegible] Phy[illegible] Diagnosis of the Lungs and Heart" Barth & R[illegible] Pr[illegible]tical Tre[illegible] on Auscultation' Gerhard on Diseases of [illegible] Prize [illegible]tations on Physical Explorations of the Che[illegible] Haxall Blakiston on Diseases of the Che[illegible] tion and Semeiology" Swett on Diseases of [illegible] Young Stethoscopist Lawson's lectures in [illegible]

ON THE DIFFERENTIATION, BY MEANS OF THE PITCH OF SOUND, OF SIGNS OBTAINED BY PERCUSSION

A conclusion deduced from observations in different diseases was that the sign known as diminish resonance or dulness is invariably higher in pitch than the normal vesicular resonance of the patient examined This character of the sign is of practical use in determining a slight degree of dulness Another conclusion deduced from the examinations of healthy persons with symmetrical chests, was that the normal resonance is higher, as a rule, at the summit on the right, than on the left side of the chest The higher pitch on the right side, accompanies a normal relatively diminished resonance or dulness on that side These conclusions have been generally accepted in this country, and to some extent by writers in other countries

My observations subsequent to the publication of my prize essay led me to conclude that a tympanitic resonance on percussion is higher in pitch than the normal vesicular resonance Statements by some writers are opposed to this conclusion, that is, it is stated that a tympanitic resonance may be lower in pitch than the vesicular resonance Here, as in other instances in which there is a difference of opinion *in relation to the relative pitch of sound* the question, of course, is to be settled purely by observation and discussion is therefore useless I am quite sure, that in my own experience a tympanitic resonance *has been always higher than the normal resonance* of the person examined The difference of opinion in regard to this point perhaps, arises from the lack of a sharp determination between pitch and quality of sound In testing the judgment of a class of medical students as to the pitch of tympanitic resonance, I have found that a certain number pronounced the pitch of the sound to be lower when to my ear it is clearly enough raised To disconnect pitch from quality requires in some persons practice

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We may formularize the facts relating to the pitch of sound in the pulmonary signs obtained by percussion, by saying, that (excluding flatness which is absence of resonance and therefore has no pitch) all the abnormal signs are higher in pitch than the normal vesicular resonance This normal vesicular resonance varies considerably in pitch in different healthy persons The variations will be found to correspond with those of the vesicular quality In proportion as the vesicular quality of the normal resonance is marked, the pitch of sound is low, and *vice versa* This correspondence is observed in the variations observed in healthy persons as well as in cases of disease

ON THE DIFFERENTIATION, BY M OF THE PITCH OF SOUND, OF RESPIR GNS

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characters are tubularity and raised pitch The absence of any vesicular quality, and the high pitch are the essential characteristics Intensity is of no importance The pitch and quality, together with other characters relating to relative length, and the higher pitch of the expiratory sound, were stated in my prize essay as determined by observations in a series of cases of pneumonia in the second stage With these characters, the sign always represents solidification of lung I may add that the characters of the bronchial respiration, as determined by analytical study, prove this sign to be, not bronchial in its origin, but transmitted from the larynx and trachea The proof consists in the fact, that the characters of the bronchial respiration are identical with those of the trachea and laryngeal respiratory sound

Bronchial respiration represents complete or considerable solidification of lung Now, in different diseases the lung is but slightly or moderately solidified The bronchial respiration does not represent the latter physical conditions These give rise to abnormal modifications of the respiratory sound not included in bronchial respiration How are these modifications to be described and named? The names rude, rough or harsh respiration were heretofore used by English and American writers These names express not merely an indefinite but a false analogy As a result of clinical observations and analytical study, I proposed in 1856 the name broncho-vesicular respiration The pertinency of this name consists in the fact that the characters consist of the normal vesicular and the bronchial in combination These characters are combined in variable proportions corresponding to the degree of solidification The name has been generally adopted in this country, although some writers prefer the name vesiculo bronchial or versiculo tubular respiration Some English writers have adopted the name But it has made as yet little progress in France or Germany In France the name *rude* continues to be used, and in Germany the name introduced by Skoda, "indeterminate respiration," is still retained It is difficult to understand why such an unsatisfactory adjective as "indeterminate" should be used to denote a definite physical sign, except that Skoda's authority in auscultation seems in Germany to be considered somewhat higher than that of Laennec

It must be admitted that Laennec's description of a respiratory sign representing a pulmonary cavity (exclusive of amphoric respiration) was imperfect Skoda denied the existence of such a sign Of English writers, Walshe came nearest to a correct description But there is a cavernous respiration, and that its characters, as derived from pitch and quality of sound, are sufficiently distinctive, was proved by facts contained in my prize essay These facts consisted of recorded clinical and autopsical observations The characters are a low pitch of the inspiratory sound, together with a quality which is neither vesicular nor tubular (a quality which I distinguish as simply blowing), and an expiratory sound still lower in pitch than the inspiratory Elsewhere than in America, the present status of this sign is about the same as it was 35 years ago Its non existence is still the doctrine in Germany, and the description of it by English and French writers has not materially changed As an illustration, at a meeting at Copenhagen last summer of members of a committee appointed by the International Congress in 1881 to establish uniformity of the nomenclature of physical signs obtained by auscultation and percussion, there were present a representative from England, from France from Germany, from Denmark, and from America The cavernous respiratory sign was one of the topics discussed, and so doubtful were the members of the committee present, other than the one from America, as regards the distinctive characters of this sign, that the member from England proposed to drop the sign from the list

I do not hesitate to make the assertion that the characters of cavernous respiration are not less distinctive and reliable than those of any other auscultatory sign Not only is its validity established on the sure basis of observations during life and after death, but the sign can be readily reproduced by inflating lungs containing cavities with flaccid wall, after their removal from the body Moreover, it may be perfectly illustrated by a simple mechanical contrivance which represents the physical conditions giving rise to it [1] Its distinctive characters will certainly be accepted anywhere as soon as the evidence of their correctness is brought to the notice and verification of clinical observers in other countries

To the abnormal modifications of the expiratory sound which, remarkable as it seems, escaped the notice of Laennec and those who immediately followed him, attention was first directed by an American observer, James Jackson, the younger, in 1833 He pointed out the significance of a prolonged expiratory sound as a phthisical sign He did not direct his attention to the pitch of a prolonged expiratory sound, nor have variations of this sound in this regard up to the present time received consideration elsewhere than in America In this remark I refer especially to a prolonged expiration when it is either the sole respiratory sign, or not associated with pronounced abnormal characters pertaining to the inspiratory sound The importance of observing the pitch of this sound was pointed out by me in 1856 [2] A prolonged, high pitched, tubular expiratory sound is as invariably proof of solidification of lung, when it exists alone or when it follows a normal inspiratory sound, as when associated with a high pitched tubular inspiration in the so called bronchial respiration If this prolonged expiratory sound be due to a prolongation of the act of expiration, as in cases of emphysema, or of some obstruction which occasions increased force of this act, the pitch is low and non-tubular as it is in health provided there be no solidification The mere prolongation, therefore, of this sound, irrespective of pitch and quality, is not a sign of phthisis or any other affection which involves solidification If not tubular and raised in pitch, a prolonged expiratory sound denotes either that the parenchyma of the lung is not solidified, or that the sound proceeds from a pulmonary cavity studies, and to inquire how far the results of my studies are, at the present time, accepted by clinical observers

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[1] Vide Lectures on the Physical Exploration of the Lungs published in the Philadelphia Medical News 1882

[2] Vide Work on Physical Exploration

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A conclusion deduced from observations in different diseases was that the sign known as diminish resonance or dulness is invariably higher in pitch than the normal vesicular resonance of the patient examined This character of the sign is of practical use in determining a slight degree of dulness Another conclusion deduced from the examinations of healthy persons with symmetrical chests, was that the normal resonance is higher, as a rule, at the summit on the right, than on the left side of the chest The higher pitch on the right side, accompanies a normal relatively diminished resonance or dulness on that side These conclusions have been generally accepted in this country, and to some extent by writers in other countries

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The characters, aside from pitch, which distinguish the sign called tympanitic resonance, are by many not sharply defined Precision requires as an essential characteristic of the sign, entire absence of the vesicular quality of sound Intensity is not a character, the sound may be more or less intensified, and it may be weaker than the normal resonance Quality and pitch are the sources of the distinctive characters of the sign Every clinical observer who has given attention to the physical exploration of the chest, must know that there is an abnormal resonance which is more or less increased in intensity, as compared with the normal resonance, but which is not purely tympanitic This kind of resonance accompanies pulmonary emphysema It is the sign obtained over healthy lung above the level of liquid within the pleura, and over the sound lobe of a lung with a lobe solidified by pneumonia An abnormal intensity is an essential characteristic of this sign The other distinctive characters, are a combination of the tympanitic with the vesicular quality, and an elevation of pitch Hence a descriptive name for this sign, is a vesiculo-tympanitic resonance This name I proposed in 1856 The name has been generally adopted in this country and by some British writers

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ON THE DIFFERENTIATION, BY MEANS OF THE PITCH OF SOUND, OF RESPIRATORY SIGNS

There are considerable variations in the intensity, the quality and the pitch of respiratory sounds in healthy persons Hence, there cannot be an ideal standard of the normal respiratory or vesicular murmur The intensity varies within pretty wide limits, the quality is in a greater or less degree, vesicular, and the pitch is not uniform This statement applies alike to the sound of inspiration and expiration Moreover, the length of the expiratory sound is variable

The normal respiratory murmur varies also in different parts of the chest The characters of the respiratory sound in the infraclavicular region differ considerably from those of the respiratory sound in the mammary, the axillary or the infra scapular regions Situated in either of these latter regions, the characters of the respiratory sound which are normal at the upper part of the chest would denote disease And again the infraclavicular region does not furnish characters of respiratory sound which are alike on the two sides A practical acquaintance with these normal variations is an important requirement as preliminary to the study of morbid respiratory signs The importance of observing and recording the characters of the respiratory sound in a considerable number of healthy persons, and subjecting the observations to analytical study, seems not to have been fully appreciated heretofore, and is perhaps not sufficiently so by many of the present time The conclusions obtained by this method of study, are embraced in my prize essay and in my "Treatise on Physical Exploration, etc," the latter published in 1857 Without going into details, I will simply state that these conclusions have not only been confirmed by continued observations, but I am not aware that anyone has claimed to have disproved them

Taking up first an important respiratory morbid sign, namely, the bronchial or tubular respiration, it is a correct comparison to say that the sound is like that produced by blowing through a tube But how much more precise is a description embracing its characters pertaining to quality and pitch! These characters are tubularity and raised pitch The absence of any vesicular quality, and the high pitch are the essential characteristics Intensity is of no importance The pitch and quality, together with other characters relating to relative length, and the higher pitch of the expiratory sound, were stated in my prize essay as determined by observations in a series of cases of pneumonia in the second stage With these characters, the sign always represents solidification of lung I may add that the characters of the bronchial respiration, as determined by analytical study, prove this sign to be, not bronchial in its origin, but transmitted from the larynx and trachea The proof consists in the fact, that the characters of the bronchial respiration are identical with those of the trachea and laryngeal respiratory sound

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[2] Vide Work on Physical Exploration

In respect to the application of pitch to pulmonary râles (embracing under this term all purely adventitious sounds) one point only calls for remark in this paper. Of course, every auscultator knows the import of high and low pitched dry bronchial râles as regards their production in tubes of small or large calibre. The significance, however, of the pitch of moist bronchial or bubbling râles, inclusive of the so called sub crepitant râle, is perhaps not generally appreciated. A high pitch denotes that these râles are produced in tubes which are situated either within or proximate to solidified lung, and a low pitch excludes solidification at or near the site of their production. The significance of pitch in this connection was pointed out by Skoda. The correctness of his conclusions has been fully confirmed by my observations. This is a practical point in auscultation to which most writers make no reference.

ON THE DIFFERENTIATION, BY MEANS OF THE PITCH OF SOUND, OF VOCAL SIGNS.

To those who have given no attention to the subject, it may seem that the differential characters of vocal signs offer little room for variations in the pitch of sound. The fact is otherwise; the variations in pitch are of much importance. An abnormal increase of the intensity of vocal resonance without any notable elevation of pitch, as compared with the normal resonance, denotes either a moderate degree of solidification of lung or a pulmonary cavity. The resonance of the voice transmitted through a cavity may be greatly intensified, so much so as to be painful to the ear, especially if the binaural stethoscope be used, whereas the pitch is not much, if at all, raised. Taken in connection with other signs, a notable increase of resonance, without elevation of pitch, within a circumscribed area is highly significant of a cavity. If the pitch be high, either with or without increase of intensity, the resonance denotes complete or considerable solidification of lung. This elevation of pitch is in fact an essential characteristic of bronchophony. The voice of the patient seems to be near the ear. Doubtless this was meant by Laennec when he described the voice as being conducted up the stethoscope. A high pitched vocal resonance near the ear is always evidence of complete or considerable solidification, whether the vocal sound be intense or weak. Increased vocal resonance and bronchophony are, therefore, two distinct signs differentiated especially by pitch, the significance of the former being either moderate solidification or a cavity, and that of the latter being complete or considerable solidification.

The sign called by Laennec ægophony, and to which he devoted so much consideration in his treatise, has the pitch of bronchophony. It denotes considerable or complete solidification. In this respect it is neither more nor less than bronchophony. It differs from the latter in an apparent distance, as well as in its tremulous or bleating character. In pectoriloquy, as is now well known, in opposition to the teaching of Laennec, the speech may be conveyed either by solidified lung or through a cavity. Can it be determined whether or not pectoriloquy denotes a cavity or solidified lung in particular cases? I answer this question in the affirmative. The discrimination is made by attention to the pitch of sound. If the vocal resonance associated with the transmission of speech has the characteristics of bronchophony, that is, the pitch raised and the voice near the ear, the medium of transmission is solidified lung; if, on the other hand, the characteristics of bronchophony be wanting, the transmission is through a cavity. This method of differentiation I have practised and taught for many years. Its reliability is yet to be accepted by others.

It is noteworthy that the auscultatory signs, respiratory and vocal, together with those obtained by percussion, are either single or compound. Percussion furnishes a combination of vesicular and tympanitic resonance in the sign called vesiculo tympanitic resonance. The respiratory signs called vesicular and bronchial are united in the broncho vesicular respiration. Pectoriloquy may be associated with either bronchophony or cavernous resonance. Other combinations not considered in this paper are broncho cavernous and vesiculo cavernous respiration.

DIFFERENTIATION, BY MEANS OF THE PITCH OF SOUND, OF SIGNS PRODUCED BY THE WHISPERED VOICE.

In 1856 I described certain signs produced by the whispered voice, and proposed names for their designation. Subsequent observations led me to form a group of these signs corresponding to those produced by the loud voice, and corresponding names were applied to them. An enumeration of the morbid signs, designating the normal sound the bronchial whisper, is as follows:

1. Increased bronchial whisper.
2. Bronchophonic whisper or whispering bronchophony.
3. Cavernous whisper.
4. Amphoric whisper.
5. Whispering pectoriloquy.

Variations in the pitch of sound constitute an essential element in the differential characters of these signs.

1. A simple increase of the normal bronchial whisper is but little raised in pitch, the chief characteristic being an abnormal intensity. This sign corresponds to increased vocal resonance.

2. Bronchophonic whisper corresponds to bronchophony with the loud voice, and a high pitch is its chief characteristic.

3. A cavernous whisper is low in pitch. Its analogue, as a vocal sign, is an intensified resonance without elevation of pitch.

4. An amphoric whisper is characterized by a musical intonation.

5. Whispering pectoriloquy may denote either a cavity or solidified lung. If the latter, the pitch of sound accompanying the transmitted speech is high; if the former, the pitch is low.

As a whisper is an expiratory sound, the characters of these several signs correspond of course to those produced by the act of expiration in the respiratory signs which have the same significance, namely, the broncho vesicular, the bronchial, the cavernous and the amphoric respiration Whispering pectoriloquy, alone in the group of whispering signs, has no analogue in the respiratory signs An experience of many years has led me to consider the group of signs produced by the whispered voice as an useful extension of auscultation

AN ATTEMPT AT THE RADICAL TREATMENT OF TUBERCULOSIS[1]

BY J T WHITTAKER, M D,
OF CINCINNATI, OHIO

Pathologists recognize the frequency of recovery from attacks of tuberculosis of the lungs When patients once thus affected die of other or intercurrent disease, characteristic cicatrices or calcareous condensations are found in the lungs, along with adhesion of the opposed pleura

It would therefore seem rational to endeavor to induce or hasten such processes during the course of the disease, with the hope of destroying its cause (perhaps by preventing the nutrition of it), or at least to oppose a bar to its further progress The possibility of such a procedure would seem all the more justifiable for the reason that the disease is and remains, in most cases, for a long time quite strictly circumscribed It may be taken for granted that every one now believes the disease to be a mycosis With the double purpose of directly addressing the cause of this disease with an antimycotic agent, and of producing the irritation which might result in proliferation of the connective tissue of the lungs, I have made a number of parenchymatous injections into the lungs with solutions of the mercuric bichloride of varying strength A number of experiments of similar character were made by Hiller, of Berlin, with negative results, but I have been stimulated to repeat these experiments with the modification in the solution suggested by Stern, in the hope that by rendering the remedy less irritating to the lungs, I might be able to use a larger dose

I took the precaution, in making these experiments, to select only such patients (with one exception), in whom the disease existed in what is commonly called its first stage, with at most apicial consolidation of the upper lobe I did not venture upon the use of this remedy where undoubted evidence of softening existed, or where cavities could be appreciated in the lungs Seven years ago I had the misfortune to lose, upon the operating table before the class, a case in which I had aspirated the contents of a large cavity in the left upper lobe

The experiments of Wilhelm Koch upon cats and dogs, which consisted in making into the lungs parenchymatous injections of potassium iodide, with the effect of producing proliferations of the connective tissue to any desired extent, relieved me of the necessity of making any preliminary operations of this kind myself, and the impunity with which large doses of the bichloride are introduced subcutaneously in man, relieved me of any anxiety of danger in this respect

[The essayist here related his observations upon five patients carefully selected, where accurate thermometric records were kept and all points of history noted with regard to cough, night-sweats, appetite, condition of bowels and weight The bichloride was injected daily at a depth of four to six inches, in quantities varying from 1-32 to ⅛ grain At the same time all the patients inhaled from an atomiser a solution of the bichloride with common salt three times daily for five weeks There was, as a result of this treatment, no change whatever in the course of the disease What fluctuations were observed were of the same character precisely as before The essayist next spoke of the value of the bichloride as an antimycotic agent, and sought to be able to account for its failure in tuberculosis]

It is the testimony of all competent mycologists, without exception, that the bichloride of mercury is the most potent antimycotic which we possess In comparison with this agent, observes Kuster in his paper on the treatment of wounds (Real Encyclopadie, xv, 290), "all others must stand in the background, and it is incomprehensible," he continues, "why the search for new antiseptics continues with the risk they imply of unknown dangers to the patient" Schede, of Hamburg, concluded his discourse at the surgical section of the International Congress at Copenhagen, in August last year (vide, published in *Volkmann's Sammlung*, Feb 12, 1885), with the statement "Whoever will use sublimate after the manner mentioned, with regard to the cautions described, will find it by far the most reliable and effective means of disinfection, and not only this, but also the agent which will favor the quickest healing of wounds Moreover, it is the most free of all agents of any disturbing or dangerous accessory effects" Bruns (*Berlin Klin Wochenschr*, xx, p 295, 1883) says that with sublimate antisepsis "cases of so called aseptic surgical fever almost never occurred" The obstetricians and gynæcologists at once adopted the bichloride with such degree of enthusiasm as to have led to its abuse and to reactionary protest in the latest times Fuhrman, of Breslau, shows by statistics (*Schmidt's Jahrbucher*, June 24, 1884), the superiority of sublimate over carbolic acid in the effect on the temperature curves of puerperal fever In Kezmarsky's clinic at Buda Pesth a comparison between the results of treatment with carbolic acid and sublimate showed "decidedly better results for sublimate," as parametritic exudations, ulcerations, etc, etc, occurred much more rarely It is useless to multiply statements here as to the supreme value of the bichloride in antisepsis Thorn, in his paper, "A View against the Present Method of using Sublimate" (*Volkmann's Sammlung*, Feb'y 12, 1885), quotes from no less than twelve authorities, who have expressed themselves for the most part emphatically in its favor, though this author himself is decidedly opposed to its use in obstetrics

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[1] Read in the Section of Practical Medicine Materia Medica and Physiology of American Medical Association May 1885

I may state parenthetically that I had upon this occasion to appear before a coroner and fortify my position with the citation of an array of cases in which this operation was successfully performed though as was later ascertained with no permanent benefit in any case

The surgeons and gynæcologists who have made such extensive use of the bichloride, have employed it, as a rule, in the strength of 1 to 1,000, in round numbers, seven grains to the pint. In this proportion the corrosive sublimate is absolutely fatal to all germs in the free state. Whatever may be the doubts or dangers of its internal use in this strength, it is conceded on all sides that in this proportion sublimate remains the best agent for the disinfection of all the externals of surgery, as of the hands, instruments, etc. But corrosive sublimate has been given internally for all time in much stronger proportion. Perhaps the one eighth of a grain is considered the average full dose of the remedy internally. According to Seidel (Handbuch der Gerichtl. Med., Bd. 11, 1882), the maximal dose of the bichloride of mercury is the 9/20, a little less than one half a grain, and the maximal quantity that can be safely administered in the 24 hours is 1½ grains. Severe toxic effects have been observed after the exhibition of 1/8 grains, a quantity which most authors consider a fatal dose. The real lethal dose, this author continues, may be put somewhat higher, viz., at 3¾-7½ grains, though recovery has been observed after 15 grains taken on a full stomach, and oftener is incidentally remarked than after toxic doses of arsenic. Eulenberg (Handbuch der Allg. Therapie Bd. 1, 2, 3, p. 105, 1880) gives a solution of 1 to 100 as the proper quantity for percutaneous use in the treatment of syphilis, of which solution 15 drops, containing 3/20 of a grain, is the proper dose in the treatment of syphilis by this method. Single doses of 3/10 to 9/10 of a grain may, he says, according to Seine, produce severe toxic effects. As a rule, the average dose cited, 3/20 grain, produces no local irritant effects of any severity, but should they ensue, they may be obviated by combining the sublimate with morphine. When local caustic effects are desired, very much stronger proportions have been used. Thus Bienfait, of Rheims, injected into the œdematous eyelids of milzbrand carbuncle an alcoholic solution of 1 to 5, Luton, a few drops of an alcoholic solution of 1 to 30, Dominguez, in elephantiasis Græcorum, 20/80 drops of a 10 per cent. solution, equal to 8/10 of a grain. But to return to the disinfecting or antimycotic solutions. To render the bichloride less painful and most permanent, as well as to secure a preparation most easily absorbed and assimilated, it has been proposed by Stein, Recler and Gschnhakl, to make of it a neutral solution by the addition of common salt, in the proportion of ten parts of salt to one of the sublimate. And, in fact, according to Bernatzik (Real-Encyclopadie, vii, 33), the addition of salt renders the preparation less irritant, and according to Sigmund, less productive of inflammatory depots. It is highly probable that mercury, administered in whatever form, is converted into the bichloride and enters the blood as an albuminate, with the liberation of the chlorine in the blood. The experiments of Mixerliez have shown that the albuminate of mercury has by no means the same anti-mycotic property as the sublimate, and is not even as effective as carbolic acid, and the observations of Schill and Fischer, published in the communications of the sanitary office at Berlin, showed that corrosive sublimate did not destroy the virus or germs of tuberculous sputa as effectively as carbolic acid. The most satisfactory experiments in this direction were made by Hollaender (*Deutsche med. Wochenschrift*, April 21, 1884). The sputum was taken directly from pronounced cases (the presence of bacilli having been always previously established), and after remaining half an hour in contact with the disinfecting substance, was rubbed up fine in a porcelain mortar and injected into the trachæ or peritoneum of rabbits. As the result of 23 experiments, it was observed that small quantities of no disinfectant sufficed to render tuberculous sputum innocuous. Sputum which contained one tenth per cent. sublimate produced upon the peritoneum a granular eruption, which could be regarded as tuberculous, though no bacilli could be demonstrated. To absolutely destroy all tuberculous germs, it was necessary to use a proportion of two tenths of one per cent. corrosive sublimate. To produce the same effect with carbolic acid required a strength of 3 per cent. Two fifths of one per cent. equals practically one grain to the ounce. A hypodermic syringe full of this solution contains about one eighth of a grain. This quantity can be injected with impunity into the lungs. But the question arises whether the destruction of a large mass of the bacilli tuberculosis will cure the disease. Will not a few which must, under any circumstances escape, continue to multiply as before? Or will not the soil remain just as fertile to the reception of new seed? The mycologists themselves do not, as a rule, look with favor upon experiments of this kind. Yet clinicians can never be content with prophylaxis alone. There is still hope of effecting, by drugs, such chemical change in the lung tissue as will make it infertile to the growth of the bacilli, as will bring about the condition which takes place in the process of natural recovery.

TREATMENT OF THE SECUNDINES IN ABORTION AND IN LABOR[1]

BY W. H. WATHEN, M.D.,

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The management of the membranes in abortion and in labor has recently received a good deal of attention by the medical profession of this country and of Europe, with a very marked improvement in the treatment. Still we are very far from being united upon any one course of practice, some physicians adhering to the purely expectant treatment, some practicing the immediate removal of the membranes, while others adopt a system intermediate between these. We cannot, in the time allowed, consider this subject in detail, but hope to make some practical suggestions, based upon experience and observation in the treatment of these cases.

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[1] Read before the Section of Obstetrics and Diseases of Women of the American Medical Association, April 28, 1885.

We will first speak of the membranes in abortion at the different periods of pregnancy, from the beginning to the end of the seventh month, and then of the membranes in premature labor, and in labor at term That we may treat abortion intelligently and scientifically, we should fully understand the formation and the relations of the fœtal and the maternal membranes, as the treatment indicated at one period of pregnancy may be contra indicated or unnecessary at another

In an excellent paper by Dr David Ingles, of Detroit, in the April number of the *American Journal of Obstetrics*, the following appears "During the first two months of gestation the fœtus and the placenta are so intimately bound together that an abortion at that period usually means that when one is expelled the other must be also"

Every physician should know that in the first and second months of pregnancy there is no placenta, and that in abortions before the eighth week the fœtus is surrounded only by the amnion, the chorion and the decidual membranes, and that the formation of the placenta proper begins at the decidua serotina about the end of the second or the beginning of the third month, until this time the fœtus is nourished through the villi of the chorion, which enter alike into all parts of the decidua reflexa In abortions prior to this date there is no placenta to remove, and the membranes, if retained, are generally innocuous, and will soon be separated and expelled without causing hæmorrhage, septicæmia, or any sort of polypoid formation, nor will involution or convalescence be interfered with If these membranes can be reached by the finger in the vagina and removed with comparative ease, they should be taken away to avoid possible trouble, but when they cannot be removed without introducing the finger or instruments into the uterine cavity, they had better be retained I have seen no ill effects from this practice In cases where serious results and death have been reported from the retention of these little membranes, I suspect the pregnancy had continued long enough for the formation of a placenta

In abortions from the beginning of the third to the end of the seventh month with retained placenta, with the os dilated or firmly contracted, the membranes should be immediately removed when we are convinced that nature will not do so within thirty to sixty minutes, for if not expelled in this time, we are unable to form an intelligent idea of how long they may be retained, or when some complication may arise The advocates of waiting for nature in these cases are illogical, and the practice has cost the lives of many women We can argue with more consistency against any interference in the first or second stages of abortion or labor, for as the dangers of complications from delay are greater in the second than in the first stage, so also are the dangers from delay in the third stage greater than those of the second When nature fails to do her part promptly and perfectly, we should assist just as in any other abnormal condition of the system

We might say, with equal propriety, that chloroform or the forceps should never be used in labor A retained placenta may be expelled at any time without serious results, but it is sometimes retained for months, and until expelled, the woman's life is constantly in jeopardy from hæmorrhage, inflammation, septicæmia, etc Medical literature contains numerous instances of serious complications, and of death from a retained placenta in abortion, and doubtless most physicians who enjoy a large practice have had similar experiences I have seen many cases of uterine disease caused by retained membranes, one woman died, and several others narrowly escaped death The immediate removal of the secundines tends to prevent these complications without substituting others in their stead With the proper facilities, and with reasonable degree of care, the removal of the membranes with the finger, or even with instruments, will seldom be followed by any bad results, nor do I remember instances in my experience, or in medical literature, that contravene this opinion I can see no excuse for delay, the complications of the expectant treatment are nearly always more serious than those following the immediate removal of the membranes

The operation is not usually difficult, and if done without delay, the os will generally be enough dilated to admit the finger or the curette But if the os is contracted, it can be easily dilated to admit the finger, etc If this cannot be done by the finger, we can use a large metallic dilator—such as my modification of Leonard's[1]—which is preferable to any kind of tent With the finger we can separate the membranes and remove them from the uterine cavity without inflicting injury more easily than by other means The finger can often be introduced to the fundus by pressing down the uterus from above, or by drawing it down with a vulsellum, but the hand may be introduced into the vagina, when the finger or fingers will easily reach to all parts of the uterine cavity There may be cases in primiparæ in the early part of pregnancy when the introduction of the hand into the vagina might lacerate its walls Then we may remove the placenta with the curette and the placental forceps There should be no excuse that we have no curette—in default of anything better one can be readily improvised by using a copper or iron wire bent upon itself in a bow, after the fashion of this I show you It can be made of any size, and will serve our purpose nearly or quite as well as those handsomely manufactured

The fœtus may be expelled with the amnion intact, but the chorion, the decidua, and the placenta are retained We may fail to understand this condition or to treat it successfully, for most of our text-books do not sufficiently explain it Most authors teach that when the fœtus is expelled in an unbroken amnion the entire product of conception is usually expelled with it This is not correct I have had several cases of abortion, at three or four months, where the sac was expelled intact with the placenta retained, and Dr Sawyer reports a similar case in an abortion at five months This occurs before the amnion and the chorion are firmly united, the cord being severed between the amnion and the chorion without in any way interfering with the integrity of the amnion around the fœtus. We should examine carefully into these cases to see if pregnancy has not continued more than two months, as we cannot be always guided by the opinion of the patient. Women are often unable to state with much accuracy the date of impregnation. Nor can we tell positively the date of conception from the size or length of the embryo. I have seen an embryo not more than an inch long with a a placenta one and a half inches in diameter.

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[1] This dilator is manufactured by Messrs Tafel Bros of Louisville, and is superior to any other instrument that I have seen for rapid dilatation of the cervix in abortion or at other times It can be had at about one third the cost of Ellinger's

Authors are not yet agreed as to the best treatment of the third stage of premature labor, or of labor at term. Some recommend the purely expectant treatment, and will use no means to remove the placenta, though it be retained for hours or for days. I have no respect for the opinion of those who advocate this treatment. They destroy their own arguments, for while they have no concern about a retained decomposed placenta, they see great imaginary dangers from the retention of a few membranes occasionally left in the uterus after expression. Argument is unnecessary.

When the placenta is not expelled within thirty minutes after the birth of the child, we should then assist nature in getting rid of it. It may not be necessary to do more than to induce contraction by gentle kneading or massage over the uterus. But it is safe treatment to place a hand over the uterus immediately after the expulsion of the child to see that contraction occurs. If there is a tendency to relaxation and hæmorrhage, the uterus should be firmly kneaded until it contracts. I do not believe there is anything gained, when there is no complication requiring it, by attempts to remove the placenta by a *vis a tergo* or a *vis a fronte*—by expression or drawing upon the cord, singly or combined—until twenty or thirty minutes after the expulsion of the fœtus. It is true that Credé reports that he removes the placenta in four and a half minutes after the birth of the child with almost universally good results, but this treatment is unnecessary, may prove prejudicial to the interests of the woman, and will never be generally adopted. Garágués reports over four hundred cases in which the placenta was removed within ten to twenty minutes with excellent results. Those who oppose expression, and those who picture great dangers from pulling upon the placenta, draw conclusions not sustained by facts. But drawing upon the cord is unscientific, and puts the placenta in an unnatural shape that tends to obstruct its delivery. It folds it upon its maternal surface, like an inverted umbrella, and presents its longest diameter in the os, while nature expels it folded upon its fœtal surface, with its shortest diameter in the os. It is more scientific to introduce the fingers or the hand into the vagina and draw upon the presenting edge of the folded placenta. If it is not adherent, it can in this way be easily removed and inflict no injury upon the uterus, but if adherent, the hand should be introduced into the uterus and separate and remove the placenta. There is no impropriety in supplementing this force with expression, or in supplementing expression with this. The proper treatment is to express during contraction with one hand and to pull gently on the placenta with the other. There is no danger of inverting the uterus, or of injuring it, by either or both of these means, if carefully and scientifically practiced. If the uterus becomes indented by expression or drawing the hand upon the abdomen, or the hand in the vagina would promptly detect it and prevent inversion.

Hæmorrhage in the third stage of labor is not controlled entirely by the general muscular contraction of the uterus and by the contraction of the muscular fasciculi surrounding the uterine vessels, but also by the formation of coagula in the utero placental vessels. If we remove the placenta by expression or by pulling within less than fifteen to thirty minutes after the birth of the child, it is probable that coagulation may not be complete. Where the placenta is firmly adherent, and there is a tendency to tonic spasm of the entire uterus, or in cases with irregular and firm contractions of the circular fibres about the neck, imprisoning the placenta, we should immediately introduce the hand into the uterus and separate and remove the membranes. Delay is dangerous, and often increases the difficulty.

I have recently had two cases of tonic spasm of the whole uterus, the first with adherent placenta, which I promptly separated and removed. I was called at noon to see the other patient, who was delivered at ten o'clock the preceding night. The attending physician told me that the uterus contracted firmly as soon as the child was born, and that he could not get the placenta away. The bladder was enormously distended with urine, and the uterus was in a state of tetanic spasm, aggravated by the persistent use of dram doses of fluid extract of ergot. It could scarcely be indented through the abdominal walls, and the point of the finger could not be introduced into the os. The pulse was 100 and the temperature 101°. Fearing that an attempt to remove the placenta would not only be unsuccessful, but would also endanger the uterus, we delayed our efforts until four o'clock P.M., but stopped the ergot and gave morphine hypodermically. When we returned the uterus was less firmly contracted and the os more patulous, but very hard to dilate. Her pulse was 130, temperature 104°. She was thoroughly chloroformed, and the os enough dilated to enable me to get hold of the edge of the placenta and remove it. She was free of fever the next morning, and made a speedy recovery.

The hands and instruments used in removing the placenta should be thoroughly cleansed and disinfected before they are introduced into the vagina or the uterus. All instruments should be immersed in boiling water. If we practice all necessary precautions, and remove the membranes with care, the dangers from direct violence and from septicæmia would be reduced to a minimum.

DR. JAMES R. CHADWICK, of Boston, said he indorsed the views expressed by Dr. Wathen, but that no rule could be formulated applicable to all cases. In abortions before the formation of the placenta, he regarded the history of the case, and if the woman was a "bleeder" he immediately removed the decidual membranes He never allowed a placenta to be retained He had never seen a placental forceps that was of the slightest value The finger was the best dilator, and the best instrument to remove the membranes

Dr Green, of Kentucky, pursued the immediate course, and gave the history of a case in which he removed the retained membranes in an abortion at four months

Dr Sinclair, of Boston, thought the secundines ought to be removed at the earliest possible moment, and agreed with the author of the paper and with Dr Chadwick, that manual dilation of the cervix is the best method When the os is contracted, the fibres will usually yield to the finger in from six to eight minutes

Dr Carroll, of Texas, was in favor of the immediate removal of the membranes, and thought that the retention of decidual shreds, or a small clot of blood, may cause alarming hæmorrhage He would not hesitate to use a metallic dilator, but thought the finger a better instrument

Dr Wathen closed the discussion by saying that he advised the use of his modification of Leonard's dilator only in extreme cases in which the finger had been employed without effect

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INTRAPERITONEAL ADHESIONS IN RELATION TO TAIT'S OPERATION[1]

BY B E HADRA, M D ,

OF SAN ANTONIO, TEXAS

The following lines are in no way intended to make war on Tait's operation, such a course would be folly on my part But where there is so much uncertainty as regards diagnosis, treatment, and the *modus medendi* of these operations, any light thrown on the subject from whatever source should be considered worthy of attention No doubt, when the ovaries or tubes, or both, are so diseased as to preclude all hope of recovery, their removal is indicated But reading every day the remarkable successes of these operations, even where the uterine appendages are not diseased or at least not materially changed, and that exploratory laparatomies result in surprising improvement, we must therefore search for something more tangible, and more in accord with pathological principles, than the questionable mental impression upon the hysterical woman

The objective point in this paper is the importance of adhesions inside of the peritoneal cavity It would be but an old story to call attention to those gross adhesions, those which may glue together any two or more of the intra and extra peritoneal tissues and organs "The most frequent change is due to a chronic adhesive inflammation (perimetritis, perioophoritis, etc) Loose or firm pseudo membranes are stretched out between the posterior aspect of the uterus and the anterior surface of the rectum, or the sides of the true pelvis Others glue the tubes and ovaries to the rectum and pelvis or uterus, and in this way the tubes often become bent, or closed, the ovaries become displaced, and often thus become imbedded in pseudo membranes, and only with the greatest difficulty can they be found," etc (Orth, Pathol Anat Diagnostic, 1876) Of course, any operator understands this, and has seen such cases In calling attention to those gross adhesions, before coming to the leading point, it is not to offer anything new, but to give a word of caution against such adhesions which, if overlooked, might induce the operator to remove the uterine appendages in cases where there is no need for their removal I will cite here a case reported by Mr Tait himself, in the *Med Times and Gaz* , July, 1884 "Pains in pelvis since birth of last child Fluctuating tumor felt in Douglas' sac Tubal tumor suspected, which tumor turned out to be an accumulation of pus Laparatomy an intestinal loop firmly fixed to pelvis It was freed with complete recovery " I myself observed the following case F K Puella publica, æt 48, suffered for many years, addicted to morphine, weight about 250 pounds, evening exacerbations 101 Purulent discharges from womb, painful spot as large as two hands in left epigastrium, on percussion over which there was indistinct dullness Defecation extremely painful, and the bowels could only be moved by strong purgatives This indeed was the main trouble. Palpation over the parametrical spaces gives a dull and undefined elastic touch Diagnosis Pyosalpinx Operation Only small area of uterus visible, all around it firm adhesions to the abdominal walls The left tube, which was then opened by a rectangular incision, was found filled with pus, in the bottom there was an opening large enough to admit the finger, which communicated with the bowels This fistula was closed and a drainage-tube inserted into the tubal sac The patient here manifesting symptoms of exhaustion, the operation was terminated. She died in about 12 hours Post-mortem examination showed the same condition in the other tube. But in addition, all the abdominal and pelvic viscera, the womb, tubes, ovaries, bowels, etc , were found agglutinated to such an extent that it had to be exsected entire, when it was found that the intestine was adherent to the tubes in no less than five different places Although there was a double pyosalpinx, the adhesions of the intestine were the cause of the main sufferings

Another case which I saw in Dr Cupples' practice, of San Antonio, is unique in many respects A German woman, æt 23, married three years, began to suffer four months after marriage with severe pains in abdomen, she had dysmenorrhœa, the result of a gonorrhœa contracted from her husband Her menses became more and more scant, until finally the function wholly ceased, when she became a confirmed invalid, being for the most part confined to her bed She was much emaciated, suffered greatly with painful defecations and obstinate constipation, the bowels moving only with active purgatives A manual examination revealed very painful abdomen, especially in left hypogastrium, womb retroflexed, firmly attached and immovable, cervix atrophied and sacro-uterine ligaments so swollen and thickened as to resemble a rectal stricture.

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[1] Read in the Section on Obstetrics and Diseases of Women, at the Thirty Sixth Annual Meeting of the American Medical Association

Laparotomy was performed. A coil of intestine crossed the fundus uteri, and adhered to it. It was detached with some force. Other coils were attached to both sides of the uterus, but were so firmly adherent that after considerable manipulations it was decided to terminate the operation, as further efforts to sever the adhesions would greatly have endangered the patient's life. Much to our surprise, she made an uninterrupted recovery. All pains disappeared, her bowels became regular, menstruation became normal, and she is now doing her own household work, and fulfilling all the duties of a married woman.

I have selected these cases which might be greatly increased from the daily medical literature, to illustrate the fact that adhesions, especially those involving the intestine, are in many cases the real cause of the trouble, and that they are liable to induce the operator to perform Tait's operation. A limited peritonitis, caused by the introduction of obnoxious or virulent elements through the tubes, may at any point lead to adhesions which might be very slight, yet interfere sufficiently with the functions of the different organs to justify the thought of the operation and not only bowels, but also ovaries and tubes may easily be disturbed in their action by frail and seemingly insignificant threads. The conclusion to be drawn is obvious. In making Tait's operation, the closest attention should be paid to searching for the above named changes, as it might even happen, that those bands be broken up without attracting the notice of the operator. When the appendages are found healthy or but slightly changed, we should make a thorough examination of every organ, each for itself, which might enable us to find a solution of the mystery in detecting adhesions somewhere where we might have expected them the least.

But the object of this paper goes farther, it is to call attention also to the adhesions inside of the peritoneal cavity *above the pelvic organs*, and especially between omentum and parietal and visceral peritoneum. A peritonitis once set up, is liable to deposit its poison anywhere within the sac, and to cause circumscribed adhesive inflammation anywhere. This fact, which is well known to the pathologist, has been somewhat neglected by the gynecologist. A woman has an inflammation after dysmenorrhœa or in childbed, not severe enough to claim the dignity of peritonitis. Nevertheless it is such, and after a while, when she has been pronounced well, she will complain of pain in the abdomen, either all over or only in a limited spot, most generally in the left epigastrium. The bowels become flatulent, which may form the main complaint. These symptoms grow in intensity until we are induced to make Tait's operation, when we are surprised to find the uterine appendages normal. Sometimes massage, which we know can cure adhesive inflammation, will give relief.

Looking over our authorities, we find many ingenious explanations for the pain in the epigastrium, by nervous anastomosis, etc., but in reality it is nothing more than a chronic adhesive inflammation. The flatulence of the bowels is also easily explained by the participation of a smaller or larger portion of their peritoneal covering. By percussion in some cases we can map out the area of circumscribed adhesive peritonitis. It will give a slight dullness, even assume the appearance of a tumor. We can further understand that the peritoneal coverings of liver, spleen and stomach become involved, and in looking through Tait's list of laparotomies, we can readily see that the marvelous cures of liver and spleen affections are the result of unavoidably breaking up adhesions in the attempt to examine those organs. A case, the history of which I will give below, taught me that in some forms of latent peritonitis are strings of lymphatic nature which run between the different surfaces of the peritoneum, and which filaments, I am satisfied, shrink up after death, but during life are the vehicles of lymph or other plastic and irritative material. These lymphatic strings might be the first stage of the adhesive peritonitis, glueing together different structures and surfaces, or they might persist in this form and give rise to many of the most common complications enumerated before.

The history of this case upon which I based my deductions is as follows. A Bohemian woman, married eight years, has had two children, the last three years ago, since which time she has been an invalid. Menstrual function has not been resumed since. Constant pain over the entire abdomen, especially in left side. On examination, womb was found simply atrophied—nothing else. Laparotomy, about two tablespoonfuls of dark serum, uterus very small, ovaries normal, tubes seemingly healthy (afterwards found closed and mucous membrane thickened). Ovaries and tubes were removed, as Tait's operation was intended. Still, however, having my mind on the mentioned peritoneal adhesions, I stated to my friends Drs. Cupples, Tyner, Watts and Kingsley, who very kindly assisted me, that I would search farther up in the peritoneal sac. I introduced my hand under the omentum and swept it over the whole anterior surface of the bowels, repeating this maneuvre three or four times, and each time my hand was *covered with a large number of transparent filaments, resembling cobwebs*. The abdomen was then closed, and the woman made an uninterrupted recovery.

The case which first attracted my attention in this matter, and from which my opinion was formed, occurred in Dr. Cupples' practice, a few weeks previous to the one just reported.

A lady, 55 years of age, presented the usual abdominal symptoms. The so called ovarian regions were very painful on pressure, and there was a spot above the umbilical horizontal, where there were constant throbbing and cutting pains, preventing her from lying on that side. Had passed menopause. Tait's operation. Tubes and ovaries normal, except a few pea-like cysts in the latter, as formed so often. The hand of the operator was then made to sweep over the bowels for examination's sake. Patient made a good recovery, and experienced immediate relief from the painful spot in her side. In this instance, I could not believe the removal of the appendages had anything to do with the speedy cure, and concluded that by the manipulation an adhesive process had been broken up.

It might seem unwarranted to draw from so little personal experience such decided and important deductions. However, as it so often happens in Tait's operation, that we find the tubes and ovaries sound, or not sufficiently diseased to account for the mischief, and that their removal cannot explain the speedy relief which follows, I hope in view of these facts, that my observations will be accepted as worthy of consideration. Should these views become verified by further experience, we will then proceed in about the following way: Laparotomy, minute examination of all the pelvic viscera with special attention to adhesions, breaking them up, insinuating hand upwards with sweeping movements between omentum and bowels, and between omentum and parietal peritoneum. These movements have to be made thoroughly, sweeping over all the surfaces especially the side and spot where was most complaint. Thus a new operation—freeing the peritoneum throughout its entire area—will have been performed, and I hope, with the fullest benefit. Particularly should this operation be tried in young women, to save, if possible, the functions of generation, which consideration should warrant the risk of a second operation, being so little danger in the first one.

As stated in the outset, my object is not to disparage Tait's operation, but in doubtful cases when we find the ovaries and tubes healthy, let the unfortunate woman have the benefit of the doubt, and let the operation conform to the conditions which are revealed by it.

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

The Cholera-Bacillus.—(In the Journal of June 13th we gave a *résumé* of Mr Watson Cheyne's methods of cultivating the cholera bacillus. He shows that there are several stages of growth of the cholera bacillus.) The existence of the straight stage of the cholera-bacillus is of great importance to bear in mind, as it is probably the form which many of the bacilli assume in the intestinal contents in the early period of cholera, and as it would be impossible to recognise them as cholera-bacilli by the microscope alone, more especially when mixed with other bacteria. Hence, the discrepancy between the microscopic estimate and the estimate by cultivation, with regard to the numbers of these bacilli present in any given case, a discrepancy not remarked by me alone, but by several other observers. Indeed, from the very first, Dr Koch found it impossible to distinguish by the microscope alone, in a mixture of bacteria, these bacilli from 'other very similar forms of intestinal bacilli.' If now we examine the specimens which have been in the incubator for a longer time (eight to ten hours) we find fewer small bacilli and a large number of larger distinctly curved forms, more especially at the edge of the drop, and in many instances, these are in pairs, forming the S-shaped form described by Dr Koch. And there may also be a few spirillar forms, but I have not seen many in that stage. After this time development becomes less marked, and apparently soon ceases, whether from exhaustion of the nutriment or of the oxygen contained in the cell I cannot say, but I think most probably for the latter reason.

If a cultivation in the nutrient jelly be examined after two or three day's growth, at a temperature of 18° C. to 20° C., most of the forms will be seen to be markedly curved, though considerable variation exists, and some almost straight rods may often be found. From a very early stage of their growth in gelatin, they tend to group themselves together, to form little irregular zooglœa-masses—the highly refracting particles seen in the cultivations with a low power, and likened by Koch to bits of glass, while in the fluid jelly (for they render the gelatin fluid), there are large numbers swimming about very actively. Now in these zooglœa-masses the bacilli are, as a rule, very distinctly curved. In those free in the fluid, the degree of curvature varies very much, some, as I have said, being almost straight. In the fluid, there will also be found S shaped forms, consisting apparently of two organisms united end to end with the curves in opposite directions. In some cases, the union occurs with the curves in the same direction, as in the numeral 3. Longer spirillum like forms may also be observed, likewise evidently composed of a row of comma bacilli. If the cultivation be examined after five or six weeks, definite spirillar forms will be seen (how formed, whether from continued elongation and twisting of a single individual, or from fusion of the individual members of a chain, I cannot say). The spirals are uniform in thickness throughout, and do not show any trace of division.

Examined under a high power, (one twenty-fifth oil immersion lens), bacilli are very often seen, which do not stain equally throughout, but in which there may be two or three circular parts in which the stain is different in intensity from that in the rest of the rod. Examined on a dark ground, many of the rods are seen to be somewhat beaded, as is so often observed in other bacilli. It is not always possible to demonstrate this beaded appearance in every specimen of these bacilli, hence it probably depends partly on the amount of stain taken up, and partly on the stage of growth of the organism. Mr E. M. Nelson also states that he has observed flagella in many specimens of this organism, generally one at each end.

The amount of curvature is, as far as I can judge, dependent to a great extent on the rapidity of growth of the organism. The more rapidly it grows, the shorter it is, and the less marked is the curvature. The more slowly it grows within certain limits, the more marked is the curvature, and the greater the number of S shaped and spirillar forms. The most perfect specimen which I have seen, where the curve was marked in all the organisms, was obtained from a very slow and imperfect cultivation in jelly, which had not been neutralised, and which was distinctly acid. And I am told on good authority, though I have not yet had time to repeat the observation for myself, that, if 5 per cent of alcohol be added to the nutrient jelly, the growth is slow, and the great majority of the forms observed are spirillar. I do not wish, however, to attach too much importance to the mere rapidity of growth as modifying the morphological characters of this organism, because I think other as yet undefined conditions also play an important part.

In glass plate cultivations, the colonies are evident in about twenty-four hours, and appear, under a low power, as small, somewhat irregular pale masses. These gradually increase in size, and, where near the surface of the jelly, a small depression forms over them, so that, on looking from the side at the surface of such a cultivation, it presents numerous little depressions instead of the original smooth surface of the gelatin, each depression corresponding to a colony of these bacteria. As the colony increases in size, it becomes less compact, and the gelatine in the immediate vicinity becomes fluid. At this stage, the appearance is that of an irregular shaped mass of highly refracting granules, in the centre of a small area of fluid jelly, and floating about in the fluid are also other small refracting masses. When examined with a high power, these masses are seen to be aggregations (*zooglœa masses*) of comma shaped bacilli, and the fluid is seen to contain large numbers of very actively moving bacilli. The character of the movement is very difficult to determine on account of its great rapidity, but the S shaped and spirillar forms move in a distinctly corkscrew manner. I do not think that the single bacilli swim in this spiral manner, but of this I am not quite certain. When a bacillus is about to become incorporated in a zooglœa-mass, its motion is very characteristic. It moves backwards and forwards in part of the arc of a circle, the curvature being directed towards the centre of the circle, and away from the mass to which it is ultimately to be attached. After floating backwards and forwards in this way for some time—a movement which, I think, can only be accounted for by the presence of flagella—the range of movement becomes less and less, till the organism comes to rest at the edge of the mass. The colony goes on increasing in size for a few days, but ultimately ceases to extend or extends only very slowly. Dr Koch reckons the ultimate extent of the colony at about one millimètre. This depends apparently on the amount of gelatin present, and is the result when ten per cent is employed, but apparently, if five or three per cent gelatine be used, the colony may attain a considerably larger size than that mentioned. Something, I think, also depends on the amount of peptone added to the cultivating material. These appearances on glass plate cultivations, taken as a whole are, so far as I am aware, peculiar to the cholera-bacilli. I know no other organism which forms colonies on plates, which cannot be distinguished from those of the cholera-bacilli by a low power of the microscope.

The test-tube cultivations are also characteristic, but hardly so markedly as the glass plate cultivations. In twenty four hours, at a temperature of 18° Cent., growth is evident along the needle-track as a whitish line, broader at the upper part, and gradually tapering to the lower (the exact appearance depends of course on the size of the platinum wire employed, in all cases were a typical appearance is wanted, as thin a wire as possible should be used). At the upper part, the gelatine begins to evaporate, and there is slight depression. During the next twenty-four hours, the growth becomes more marked, and the depression increases in size so as to look like an air-bubble at the top of the track. In the following days the jelly at the top becomes liquid, and this liquidity extends gradually to the bottom of the track, thus there is a funnel shaped appearance, from the greater amount of fluid at the top than at the bottom. At same time, the mass of bacilli falls to the bottom of the fluid and assumes a somewhat rosy color, so that there is a rose colored convoluted string running down the lower part of the track. The fluid at the upper part, which in about a week has extended to the sides of the test-tube, becomes clear, except a very thin layer at the top, which remains opalescent, the top itself being often covered with a very fine scum. Scattered over the solid gelatin forming the sides of the funnel are seen numerous small irregular highly refracting particles. These are the small zooglœa-masses which have fallen to the sides and bottom of the funnel shaped cavity. The rapidity with which the gelatine becomes liquid depends very much on the amount of gelatin, and possibly of peptone, present, as before remarked. In about three weeks, the jelly in the tube becomes entirely liquid, and then we have a clear fluid with a somewhat rosy mass at the bottom, a fine scum at the surface, and a narrow layer of opacity beneath it. In such a tube, the bacilli will be found alive after six or seven weeks from the date of inoculation. No one of these characters is of itself peculiar to the cholera bacilli. They must all be looked at together, and the rapidity of growth must be taken into consideration as well. To my mind, the most typical appearance is that of the highly refracting particles lying on the side of the funnel, the liquid in the neighborhood being quite clear. The only other organism that I know which produces a somewhat similar appearance is Flugge's comma-bacilli, to be mentioned presently.

I have previously mentioned that the reaction of the material should be neutral, or slightly alkaline, and Dr Koch did not think that this bacillus would grow at all in jelly which had not been neutralized, that is, which was distinctly acid in reaction. Not that he holds that all acids would prevent growth, for he points out that the surface of potatoes is acid, and yet these bacilli can be made to grow on them. I have, however, in two or three instances, obtained distinct growth of the cholera bacilli in jelly which had not been neutralised, and which was found, when tested, to be distinctly acid. The growth was very slight and, in fourteen days, there was only a thin whitish growth along the track of the needle (not more than is formed by the typhoid bacillus in neutral jelly in the same time), and there was no liquefaction of the jelly, nor did the growth spread over the surface of the jelly.

(*To be continued.*)

THE
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PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

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Per Annum in Advance	$5 00
Single Copies	10 cents

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Address
Journal of the American Medical Association,
No 65 Randolph Street
Chicago Illinois

SATURDAY, JUNE 20, 1885

THE STATUE OF BOUILLAUD

On May 16 the statue of Bouillaud, member and president of the Academy of Medicine, professor and dean of the Faculté of Paris, and member of the Institute, was unveiled at his native place, Angoulême Few memorials of scientific men have been more deserved than this, the work of Bouillaud extended over the greater part of a century, and in its variety and magnitude it was such as but few men are capable of performing As is the case with so many of the best workers in science, he commenced life in great poverty, which though sometimes the evil sister of genius is often the mother of success and fortune Though his medical studies were interrupted, like those of Broussais in 1792, by a call to the service of the army in 1815, they were resumed immediately on the completion of the campaign of Paris He was graduated in medicine in 1823, and in the following year published the celebrated "Traité des Maladies du Cœur," by his master, Bertin In 1825, at the age of twenty-nine years, he was elected to the Académie de Médecine, and in 1826, the year in which Laennec was lost to medicine, Bouillaud was elected Assistant Professor in the Faculty over a large number of candidates, and in 1831 he was appointed to the chair of clinical medicine Thus, at the age of thirty five, he occupied the chair which had been graced by Corvisart and Laennec

His work, which hitherto had been great and laborious, now became stupendous, long hours of clinical work in the hospital and amphitheatres, active participation in the work of the Faculty, communications, reports and discussions in the Academy, laborious study in the works on ancient and modern medicine, and lectures on the works of the ancients and of the seventeenth and eighteenth centuries, experimental researches in the applications of physics and chemistry to medicine, thus in a measure fulfilling the prophecy of Bichat, writing of memoirs on physiology and medical philosophy, the publication of clinical treatises on Rheumatism and Diseases of the Heart, in which he showed himself the equal of Laennec and the superior of Corvisart And it is gratifying to write that, with his reputation and knowledge, his fortune grew Among his earliest works may be mentioned that in which he showed the part played by phlebitis and the obliteration of the veins in the mechanism of dropsies To him also we are indebted for the explanation of the mechanism of albuminuria resulting from cantharidism, and of the slowness of the pulse in simple jaundice, which he showed was caused by the passage of the bile into the blood His researches on the affections of the heart and on articular rheumatism led to a discovery which of itself is sufficient to render his name immortal, viz the law of coincidence of inflammations of the heart with rheumatism Until this discovery the causes of cardiac affections were absolutely unknown Bouillard, however, threw great light on the subject, and he showed that, in the great majority of cases, these affections are produced by acute articular rheumatism, and that they are almost constant manifestations of this latter affection The knowledge of this fact almost revolutionized the therapeutics of heart disease, and is justly considered one of the most important discoveries of this century

Another memorable discovery of Bouillaud, is the influence of lesions of the anterior lobes of the brain on the function of language, of which he treated in his clinical researches on the subject in 1825, and although Broca, 36 years later, specified the seat of the lesions which determined aphasia, yet to Bouillaud is due the credit of making the first step towards the establishment of the doctrine of cerebral localisations Besides his many monographs and treatises, he published numerous articles in the medical dictionaries and periodicals of the day

France has been justly celebrated for the eloquence of her medical men, but none have been more eloquent than he, and none have ever infused into any language more of the delicate perfume of the ancient languages than did Bouillaud into the French None are more aware of these facts than those who heard him at the International Congress held in Florence in 1865, or during the Exposition in Paris in 1867 The accredited orator of the Academy and of the Faculty of Paris, he made the orations at the unveiling of the statues of Broussais, Bichat and Laennec, and could these masters have chosen one to set forth their works in their best colors, and who would at the same time do strict and impartial justice, they could not have chosen more wisely than did the Academy on these occasions.

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The important pathological inference from the facts adduced in the papers of Drs. McHatton and Cochrane is, that the blood in hæmorrhagic malarial fever has undergone such changes as a positive disintegration of its red corpuscles and diffusion of the hæmatine and other constituents into the serum of the blood, from which it is eliminated freely by the kidneys, and also deposited in the cutaneous and other tissues, imparting to them the characteristic hue usually accompanying that disease, there being no true renal hæmorrhage. On the other hand, many of those who have treated cases of this form of disease, state positively that the urine when voided contained undissolved blood corpuscles. Thus the late Dr. S. M. Bemiss, of New Orleans, in the article on Malarial Fever in the first volume of the American System of Medicine, page 611, relates two cases of what he calls "malarial hæmorrhagic fever," in one of which he says, the "urine was loaded with albumen and showed under the microscope abundant blood-corpuscles," and in the other that the urine was "loaded with blood." It is plain, therefore, that we need careful microscopic and chemical examinations of the urine immediately after having been voided, in a much larger number of well-authenticated cases of this variety of fever, before we can safely assume that all the essential pathological changes take place in the blood, and that the renal organs are only embarrassed by the effort to eliminate the products of the corpuscular degeneration of that fluid.

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The method now under consideration, however, is intended to "influence the whole course and final result of wounds in general. For instance, let us suppose buried sutures of the first kind to have been used to unite the two ends of a divided nerve; the use of the other kind of buried sutures would now commence, and proceed as follows: Whatever muscles or aponeuroses had been divided in cutting down upon the nerve would be restored to their original relationships, and kept there by aseptic animal sutures, such as carbolized catgut; then the wound in the deep fascia would be separately sewn up. Finally, the wound in the skin would be closed by either catgut or silver, or whatever might be preferred." The advantages claimed for this method are, that the necessity for drainage tubes is obviated. As no spaces or pockets are left in which blood or serum can collect, such collections do not occur, presuming, of course, that all blood-vessels have been carefully secured, and that the wound has been made thoroughly aseptic. The second advantage is that divided muscles and aponeuroses are so accurately sutured that perfect function is soon regained. The same is true of the deep fascia which in some localities is of primary importance. *Thirdly*, deep, rough, and depressed cicatrices are avoided; and *fourthly*, necrosis of bone and sloughing of soft tissues are prevented.

In support of the practicability and advantages of his method, Mr. Keetly refers to seventeen operations, including two amputations of the thigh, and one of the leg, two excisions of the hip, one of *évidement* of the bones of the knee-joint, one wedge osteotomy of the hip, one osteotomy of the tibia and fibula, two suturings of fractured patellæ, and one removal of sequestrum in necrosis of the symphysis pubis, with large abscess in the abdominal wall. In all of the seventeen cases, save two, "the buried sutures have done all which sanguine hopes could expect of them." He has also used this method with success in two cases of resection of the quadriceps extensor cruris, which operation, when performed for infantile paralysis with loose knees, Mr. Keetly does not think justifiable without the use of buried sutures. He especially recommends their use in operating on sebaceous cysts of the head. In concluding his paper, he says that it is only in strictly antiseptic surgery that he would venture to recommend the use of these sutures.

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It is especially important to remember that in attempted reduction of these cases of dislocation any rough manipulation whatever should be avoided, and that abduction, circumduction, violent traction and forced pressure in the axilla are especially dangerous. It would seem that incision and liberation of the head of the bone, which has been tried in one case with success, is the preferable procedure in those cases in which conservative measures or gentle manipulation are of no avail. Injuries of the bloodvessels are more liable to occur in proportion to the time that the dislocation has lasted, as the adhesions become very firm. "Even a dislocated arm may be very useful, and the fatality of this accident, more than 70 per cent. of deaths, may well cause the surgeon to hesitate to incur the risk merely for the sake of ameliorating a condition which does not endanger life and is quite compatible with activity and usefulness."

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TO SUBSCRIBERS, AND MEMBERS OF THE ASSOCIATION.

The next issue of the Journal will complete the fourth volume and the second year of the publication. That number will contain the official list of members in attendance upon the recent annual meeting of the American Medical Association, in New

Orleans, as furnished by the Permanent Secretary, a title page and a full index of the volume As the number for the first week in July will commence a new volume and a new journal-year, it is a convenient time for new subscribers to commence their subscriptions, and for those who wish to become members of the Association to make their application to the Treasurer, Richard J Dunglison, M D, lock box 1274, Philadelphia, Pa There are on our mailing list a considerable number of both subscribers and members of the Association, who have not yet paid for the past year It is very desirable that all these should pay up without further delay Subscribers should remit to this office, and members to the Treasurer, in Philadelphia

SOCIETY PROCEEDINGS

OHIO STATE MEDICAL SOCIETY

(*Concluded from page 669*)

THURSDAY, JUNE 4TH SECOND DAY

AFTERNOON SESSION

DR J C REEVE, of Dayton, delivered

THE PRESIDENT'S ADDRESS

He spoke of the Evolution of the Science of Medicine Though much that is imperfect still remains, medicine in the past or present compares favorably with law or theology Medicine has always assumed the character of the age For a long time it was bound to philosophy, but to day it takes on the spirit of the age—active, practical, and advancing He would have been a bold man who, at our meeting one year ago, would have told us that before our next meeting together we would have discarded ether and chloroform for diseases of the eye There is an absence of any general theory of disease Theories and hypotheses are the servants of the human mind Systems are its masters All systems owe their origin to some defect in the science of medicine at the time they began They did a little good, but the greatest part passed into oblivion Homœopathy, its dosage and incongruities, received their share of attention Homœopathy has endured for three quarters of a century During that time the regular profession has discovered the stethoscope, ophthalmoscope, laryngoscope, ether, chloroform, chloral, cocaine, etc

The following officers were elected

OFFICERS FOR THE ENSUING YEAR

President, W Morrow Beach, of London, 1st Vice-President, H C Gill, of Cleveland, 2d Vice-President, H R Kelley, of Galion, 3d Vice-President, Thomas Mackbreit, of Akron, 4th Vice-President, J D Roberson, of Wooster, Treasurer and Librarian, T W Jones, of Columbus, Secretary, G A Collamore, of Toledo, Assistant Secretary, E C Bush, of Zanesville

DR HIMES, of Cleveland, presented a very interesting essay on *Cases Connected with Life Insurance Examinations, with remarks*

DR G W RYAN, of Cincinnati, read a report on the

INFLUENCE OF SPINAL IRRITATION AS AN ORTHOPÆDIC FACTOR

The influence of spinal irritation in the production of various deformities was carefully pointed out and numerous cases cited in proof of the author's statements An interesting case of spasmodic clubfoot was related, which was readily relieved by treatment directed to the spine Two other cases, who had been unable to walk for years because of this condition, were cured within a comparatively short time The essayist placed little reliance upon the remedies ordinarily recommended He had seen no good effect from the use of phosphorus, strychnia, or ergot He had no experience in the use of opium The proper and efficacious treatment is by means of blisters or the actual cautery applied along the spine Spinal support is of benefit Faradism and massage were valuable adjuvants to treatment

Akron was chosen as the next place of meeting, to be held on the first Wednesday, Thursday or Friday in June, 1886

DR WM T CORLETT, of Cleveland, read a paper on

DISEASES OF THE SKIN OF REFLEX NERVOUS ORIGIN

Two distinct varieties of nervous cutaneæ present themselves to the clinical observer One is a sensoneurosis, the characteristic feature being a disturbance of cutaneous sensation unaccompanied by any visible lesion Impressions made on the peripheral nerves are transferred ere they reach the *sensorium commune*, and are recognized as coming from parts more or less distant from their actual source Transferred impressions may be found in other diseases than those of the skin The surgeon looks to the hip joint for the source of pain which the patient finds in his knee, and sounds for stone in the bladder when pain is complained of in the glans penis The second variety is a tropho neurosis, which is characterized by anomalies of nutrition Impressions are transmitted more readily from cell to cell when the latter are in a state of exhaustion Thus, a sudden or unexpected noise, or a flash of light, will call out motor and vaso motor action

Pruritus is a representative senso neurosis being a disease *sui generis* and not a mere accompaniment of cutaneous inflammation After several years of study on this subject let me summarize as follows Pruritus of the palms and soles is usually met with in females having some mild affection of the uterus of long standing, pruritus of the scalp in those suffering from subinvolution of the uterus or with a ruptured perineum Pruritus *vulvæ* unaccompanied by a vaginal discharge is a common symptom of pregnancy In males the most troublesome pruritus occurs in the genito anal region It is often difficult to diagnosticate this affection from eczema, on account of the delicate skin of the parts When he first encountered this disease, the writer called it eczema He does not now so regard it because 1, it seldom accompanies hæmorrhoids, 2, because it first appears as a pruritus, 3, because other anomalies of nerve influence at times accompany or alternate with that of sensation, 4, and because it is frequently limited to one-half of the body

The most marked tropho-neuroses coming under the reader's observation have closely simulated eczema, but unlike eczema the eruption, whether papular, vesicular or squamous, remains as such throughout its entire course Derangement of the sebaceous glands has been spoken of in this connection Next to the eczematous group, it is most frequent

Senso-neuroses are, *cæteris paribus*, more frequently associated with conditions of a mild nature, functional disturbances nerve irritation and the like, whereas tropho neuroses more frequently accompany pathological conditions of a graver import, *e g*, nerve lesions or gross destructive changes in the cerebro spinal substance, although we must admit that the latter also are not infrequently due to functional disturbance alone

Dr Philip Zenner, of Cincinnati, Ohio, read a paper on

DISEASES OF THE SPINAL CORD

In his opinion, errors in diagnosis are less commonly due to real obscurity about a case than to an absence of knowledge of the leading factors upon which a diagnosis is based In proof of the truth of this statement he selected a number of cases, representing the most common diseases of the cord, from his case book, in which errors of diagnosis had been made, even by men of prominence

Case 1 —Mr W, age 38, had been treated for rheumatic pains When first seen he gave a history of having had frequent paroxysms of severe lancinating pains in the lower extremities for several years, and also various anomalous sensations, numbness and formication in the limbs, a sense of constriction about the waist, etc On careful examination some impairment of sensation in the lower extremities, a degree of insecurity in the feet when the eyes were closed, and an absence of the patellar tendon reflexes were found There was also already observable some impairment in the gait, which, the patient stated, was worse at night The symptoms in this case were so pronounced that there was no excuse for an error in diagnosis Locomotor ataxia should have been positively diagnosed This diagnosis is based upon the history of characteristic lightning pains, peculiar sensations, and difficulty of walking at night, together with the slight anæsthesia, inability to stand firmly with closed eyes, and absence of the patellar tendon reflex Yet cases occur in which a diagnosis can not be made so easily, where the nature of the pains is more doubtful, as the disease has made but little progress and its more striking symptoms are, therefore, not yet manifest

He wished to lay especial stress upon a few symptoms which, even at an early period, enable us to make a positive diagnosis These are the characteristic lightning pains, the absence of the patellar tendon reflex, and certain ocular symptoms which, though not found in the patient just spoken of, are often the earliest manifestations of the disease These symptoms are transitory paralysis of some of the external muscles of the eye, causing double vision, the so-called Argyl-Robinson phenomenon, a small pupil, which does not respond to light, but contracts during the act of accommodation, and, more rarely, atrophy of the optic nerves To the early symptoms may be added one other, the Brach-Romberg symptom, inability to stand firmly with closed eyes, though perhaps too much importance has been attached to it

Case 2 —Mr K, age 35, has had some difficulty in walking for about six years He has also had slight bladder symptoms Locomotor ataxia had been diagnosticated, but the conditions present were quite different from those of locomotor ataxia, the gait was feeble, not ataxic There was often a feeling of stiffness in the limbs The patellar tendon reflex was exaggerated, and, another manifestation of excessive tendon reflexes, the fool clonus could be elicited The three symptoms upon which the writer laid so much stress in connection with locomotor ataxia, lightning pains, absence of patellar tendon reflex, and ocular symptoms, were not present Another symptom, swaying of the body when trying to stand erect with closed eyes, was also present, though too much reliance must not be placed on this symptom, as it is often misleading

This patient had a different disease of the cord In locomotor ataxia the posterior columns are the chief seat of disease, in this patient there were changes in the antero lateral columns, what is usually termed lateral sclerosis Its usual symptoms are altogether motor, paralysis with oftimes rigidity or spasmodic contraction of muscles, and exaggerated tendon reflexes

It may appear to the superficial observer that there is little practical difference whether the disease is limited to the posterior or lateral columns, that a nice diagnosis is of no consequence to the patient But, in fact, it is a matter of much consequence Not only are the subjective symptoms of locomotor ataxia severe, while those of lateral sclerosis are insignificant, but the prognosis of the latter is decidedly better In illustration of the latter statement he mentioned a case seen in Newport in consultation with another physician When he first saw the patient, about nine months ago, he had been unable to make the least voluntary movement of the lower extremities for over a year, both the family and the physician in attendance believed the case to be utterly hopeless At the present time the patient can move his limbs freely, and there is some hope of a complete recovery

Case 3 —Mrs N, age 30, four years previous to my seeing her, observed some weakness in the lower extremities, so that she was unable to lift the feet in walking as well as formerly, could not arise easily from a sitting to a standing position, etc The weakness subsequently invaded the muscles of the trunk and the upper extremities When the writer saw her, the deltoids, the biceps of the arms, and the quadriceps femoris of both sides, as well as many of the muscles of the back were almost completely paralyzed Especially noticeable was the patients method of arising from a sitting to an erect position She succeeded in extending the knees by pressing with the hands upon the thighs, and then raised the trunk with the assistance of a chair or other external support In this effort a remarkable curving of the spine in the lumbar region was produced, presenting an appearance as though there were no unyielding parts about the spinal column, and led to the suspicion on the part of one of the physicians who saw her, that she had disease of the vertebræ

But a diagnosis in this case ought to have been readily made There was in addition to the paralysis, atrophy of the muscles, and, a point upon which too much stress can not be laid in connection with the diagnosis of such cases a loss of electrical contractility in the affected muscles The atrophy and altered electrical reaction of the muscles together with the history of gradually extending paralysis, were quite sufficient to establish the diagnosis of progressive muscular atrophy, though in this case, the manner of development of the disease was an unusual one, and had, therefore, misled other observers

Case 4 —Mrs L , age 52 had been operated upon for carcinoma of the mammary gland About eight months after the breast was removed, she began to suffer with severe pain on the same side, like that of intercostal neuralgia Subsequently she was seized with severe pain in the lower extremities hyperæsthesia of the surface, and paraplegia, with some atrophy of the muscles of the legs Dr Zenner saw her in consultation about six months after these symptoms were first manifested The symptoms were those just given Myelitis had been diagnosticated He called attention to three important factors, the gradual access of the symptoms, the severity of the pains, seldom, if ever, found in ordinary myelitis, and the history of a previous malignant disease of the breast, and gave, based upon these factors, a positive diagnosis of malignant disease within the vertebral canal, and a prognosis of a fatal issue within a year The subsequent history of the case strengthened the diagnosis There was a gradual increase in the paralysis and muscular atrophy, motion of the vertebral canal became very painful, and, at a later period, there occurred some deformity of the spine The patient died nine months subsequent to his seeing her, and on *post mortem* examination, numerous carcinomatous nodules were found in the vertebræ and the chord The symptoms which became manifest after he saw the patient, pain on movement of the spine and deformity, indicated that the vertebræ were the seat of disease, and were, therefore, of great weight in diagnosis But the earlier manifestations were quite sufficient to make a correct diagnosis Paraplegia, with pains so severe that the name paraplegia dolorosa has been applied to designate it, is rarely, if ever, found excepting with malignant disease When we find, in addition, that malignant disease has been found in another part of the body, no doubt of the diagnosis should be entertained

If a patient comes with a history of pains, of weakness, or anomalous sensations pointing to the chord, we should examine as to the presence of ocular symptoms, as to the condition of the cutaneous sensibility of the tendon reflexes of the vegetative functions, especially bladder and rectum, and as to the kind of gait, to see whether there are any indications of the presence of locomotor ataxia We should also examine to see whether any motor paralysis with increased tendon reflexes and rigidity of muscles point to disease of the motor columns of the chord, or paralysis and atrophy of muscles with altered electrical reaction point to affection of the gray matter If all such symptoms can be excluded, we are probably in the presence of a functional disease, which, with time and proper treatment can be entirely removed, and whose positive diagnosis will bring immediate mental relief to an anxious, perhaps despondent, sufferer

FRIDAY, JUNE 5, THIRD DAY

Dr N P Dandridge, of Cincinnati, read a paper on

OSTEOTOMY FOR DEFORMITIES

He reported the case of a patient with a malformed hip, the femur being much distorted He cut through the deformed tissues of the thigh and placed the parts in their natural position confining them by means of bandages The patient in a few months regained the use of the formerly deformed limb, and was able to walk in the natural position Other cases were also reported

Dr H G Landis, of Columbus, read a paper on *Occipito Posterior Positions*, Dr C H Von Klein, of Dayton, a paper on *The Voice in Singers*, Dr Joseph Ransohoff, of Cincinnati, read a volunteer paper on *Urethral Calculus* and Dr H J Herrick of Cleveland, a volunteer paper on *Dietetics in Typhoid Fever*

Dr W Morrow Beach, of London, was introduced and made an address

Resolutions of thanks for receptions at the Southern Ohio Insane Asylum, the National Soldier's Home, and one by the Montgomery County Medical Society, were passed

The Society then adjourned

GYNÆCOLOGICAL SOCIETY OF BOSTON

Annual Meeting, January, 1885

The President, H O Marcy, M D, in the Chair

The paper of the meeting was the Annual Address of the President on

THE RÔLE OF BACTERIA IN PARTURITION

About five years ago Dr Marcy read a paper upon "Antiseptics in Midwifery," in which he taught that instrumental deliveries should be conducted with all the care and precaution of a major surgical operation, and that antiseptics were of equal importance in both Since then, not only have these views been generally accepted, but it is now taught at Harvard that the antiseptic vaginal douche should be used in *all* cases of normal labor

In normal labor the uterine cavity probably remains aseptic, and its denuded surfaces and lacerations are not unlike subcutaneous wounds, therefore the lochial secretion remains a non irritant, innocuous fluid This secretion is highly albuminous, and is a perfect fluid for the rapid propagation of microorganisms accidentally introduced, but not normally present, in this perfect incubating chamber Some writers assert that the bacteria normally present in the vagina act as causative agents in the production of puerperal fever, and, on this ground, advise antiseptic vaginal injections before labor This is not the case The bacteria found in the vagina are the bacteria of decomposition, and do not develop readily in the blood, and when injected act as chemical irritants If they were the offending germs all primal labors would develop symptoms of septicæmia, for in these cases there are always solutions of continuity, either cervical, vaginal, or perineal This bacterium of decomposition is rarely a source of danger, but may serve a useful purpose by utilizing and exhausting the material which might feed an army of more dangerous enemies They are rarely if ever found in the uterine cavity, as the lochial outflow is constant during the first few days and prevents their progress toward the uterus It is evident that solutions of continuity are not of themselves sources of danger, since it is not shown that primal labors are more frequently followed by septicæmia than others

When manipulative interference becomes necessary the whole phase of the question changes, for we are now incurring danger of introducing germs from without, and strict antiseptic precautions become necessary The hands of the operator should be aseptic, the uterine cavity thoroughly cleaned by antiseptic applications, and firm contraction of the uterus maintained by ergot and compression The same general rules govern here as in surgery, for puerperal fever and surgical septicæmia are the same The microorganism that is the cause of puerperal fever is the round-cell growth, the micrococcus, which develops with wonderful rapidity in the blood The planting ground is rarely the vagina but usually the uterus Its development is not accompanied by any odor When these micrococci have gained admission and infection has taken place, intrauterine douches cannot undo the mischief, as the germs have already passed into the blood and tissues, and are there rapidly reproduced Our injections may cut off reinforcements but cannot stay the progress of the army already advanced beyond the point of attack It may be best to treat the uterine cavity as an infected, suppurating, and sloughing wound, by using the curette or applying pure carbolic acid to prevent further absorption and stimulate the surrounding tissues

The relation of erysipelas to puerperal fever was first advocated in Boston Within a year five fatal cases have occurred in the practice of one physician following a case of erysipelas Sterilized bulbs inoculated with fluid taken from just within the *os uteri* produced a form of micrococcus which could not be differentiated from those taken from the blisters of erysipelas

Too much importance has, undoubtedly been placed upon injections In normal labor they are unnecessary and may be dangerous

Dr W S Brown was inclined *to be skeptical in* regard to the causal relation *of* microorganisms to the troubles of the lying-in woman He thought the tube of the syringe might do harm and cause hæmorrhage He never used the douche unless he had reason to believe there was some noxious material to wash out He found that filling the spaces under the finger nails with softened soap a convenient and efficient means of preventing infection from that source

Dr Horace White had had no case of puerperal fever in 25 years of practice He did not use douche unless it was specially indicated Aside from thorough cleanliness he had adopted no Listerian precautions

Dr Grainger had not used antiseptics for 15 years, even in cases of forceps or turning He thought septicæmia likely *to follow post-partum* hæmorrhage, and always gave *ergot and quinine in* such cases He had used intrauterine injections only three times in his practice

The

ANNUAL ELECTION OF OFFICERS

resulted as follows

Henry O'Marcy, M D , President
A L Norris, M D , Vice-President
H J Harriman, M D , Secretary
W S *Brown*, M D , Treasurer

The Pathological Committee, as appointed by the Chair, consists of Drs A P Clarke, E W Cushing, and W O Hunt

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OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, June 4, 1885

The President, B F Baer, M D , in the Chair

Dr E P Bernardy read a paper on

BINIODIDE OF MERCURY AS A DISINFECTANT IN OBSTETRICS

His attention *was first attracted to the use of* biniodide *of mercury as a germicide by* Dr Miquel, who published in *L'Annuaire Meterologique de Montsouris* the results of some experiments made to determine the minimum amount of a disinfectant necessary to prevent fermentation in a litre of sterilized beef broth His experiments show that the mercurials are the best antiseptics, the biniodide being nearly three times as strong as the bichloride In his table of disinfectants he places the bichloride the fourth on the list To a litre of sterilized beef-broth, he found it required 0,025 grammes of the biniodide of mercury to keep the broth pure, while 0,070 grammes of the bichloride of mercury was necessary to produce like effects This shows that bacterial life is impossible in a solution of one forty-thousandth part of the biniodide, while of the bichloride it requires the one fourteenth-thousandth part I was so favorably impressed with his experiments that I determined to give the biniodide of mercury a trial in obstetric cases in which it would be necessary to use an antiseptic The following are the cases in which it was used

Case 1.—On February 7, '85, I was requested to take charge of Mrs. D., who had been confined about six weeks previously. It had been her second confinement, the duration of labor had been short and delivery natural, but an extensive laceration of the perineum had occurred. No attempt had been made to bring the parts together by sutures. On the third evening she had been attacked with severe frontal headache and chills followed by fever, with great tenderness on the region of the uterus. There being no improvement in her condition, her medical attendant was discharged, another called in who gave such an unfavorable prognosis that he also was requested to cease his attendance. I was finally called in on the above date. The patient had well-marked symptoms of septic poisoning, pulse 130 to 140, small and thready, and disappearing under pressure of the finger, temperature 104—105°, slightly delirious, constant vomiting, abdomen swollen and excessively tender, uterus enlarged, extending fully three inches above the pubis. In the right side there seemed to be a growth extending up into the abdomen, tender on pressure. On making a vaginal examination I found the os dilated, so that my index finger could readily enter the uterus. Its withdrawal was followed by a gush of highly offensive matter. The uterus was surrounded by organized lymph and was immovable. The mass on the right side was easily detected and was continuous with the lymph surrounding the uterus. The vagina was hot. The perinæum was torn to the anus, the surface raw and secreting an acrid matter which scalded the surrounding parts. The urine was dark, on standing a reddish material settled to the bottom, it looked like blood corpuscles. Dr. A. E. Rowsel examined the specimen and reported it to be slightly acid, no albumin nor sugar, under the microscope occasional pus corpuscles, and swarming with bacteria. In conjunction with internal treatment, intra-uterine injections were made three to four times a day. I first used a solution of bichloride of mercury, one to two thousand. This was continued for three days without any marked results. The discharges continued as offensive. On the fourth day the bichloride was replaced by a one to four thousand solution of biniodide of mercury. Within twenty-four hours an amelioration of all symptoms took place, the pulse fell to 100, temperature 101°. Urine became clear, and the discharge odorless. The injections were continued for ten days, their frequency being gradually reduced. The uterus returned to almost its normal size and the lymph was gradually absorbed. The patient recovered.

Case 2.—March 19, '85, I was called to attend Mrs. H. in her first confinement. On my arrival found she had been in labor several hours, examination showed the os perfectly dilated, bag of water protruding, vortex presentation, first position, ruptured the amnion. The vagina near its outlet was roughened with venereal worts, these spread also over the vulva. Labor progressed rapidly and the second stage was happily ended. After waiting nearly an hour making compression on the uterus, I made slight traction on the cord, and while doing so, felt, with my hand upon the uterus, a cup-like depression of the fundus take place. This convinced me that I had an adherent placenta to deal with, and it would be folly to wait any longer; on introduction of the hand I found the placenta completely adherent, one could hardly say which was uterus, which placenta. After considerable trouble, I at last succeeded in detaching the placenta; it took fully three-quarters of an hour. On making a second examination to ascertain if all had been removed, my hand came in contact with long shreds hanging from all sides of the uterus; the more I scraped, the more there seemed to be. I gave the patient ʒij of the extract of ergot. The patient did well for ten days, when toward evening she complained of a chill and severe frontal headache. I gave her quinine sulph. gr. x., with morph. sulph. gr. ¼ at one dose and washed out the uterus with 1 to 4,000 solution of biniodide of mercury. The pulse was 115, and the temperature 102°. The discharge was highly offensive. The injections were repeated every four hours. On the evening of the next day the pulse was 98, temperature 100°, discharge odorless, and the patient was perfectly well in ten days more.

Case 3.—April 23, '85. I was requested to call at once to see Mrs. K., who was reported in eminent danger of death. This was her ninth confinement. The history of the previous ones, with one exception, was not good. Her labors were natural, but were followed by terrible flooding and protracted convalescence. I found the patient in an attack of puerperal convulsions. I gave at once grs. xxx of potass. bromide, and grs. xx of chloral hydrate; this dose was repeated in half an hour; ten minutes later another convulsion occurred. I then bled the patient freely. The os uteri was somewhat enlarged, the cervix soft and dilatable, vertex presentation. Dr. Custin, whom I had sent for, having confirmed my opinion, and considering that the patient's time was quite up, we decided to etherize, dilate the cervix and deliver. The forceps were applied, and traction made at intervals. A living child was safely delivered. Continuous pressure was maintained over the uterus, but after the expulsion of the placenter the uterus did not contract until it had been washed out with hot water. The bromide and chloral was continued every two hours and no more convulsions occurred. The patient did well up to the fourth day when the discharges became very offensive, the pulse accelerated, and slight tenderness existed over the uterus, no chill or fever. The uterus was thoroughly washed out with a solution of one to four thousand biniodide of mercury. Within twenty-four hours the discharge became odorless, and the tenderness over the uterus had disappeared. The patient recovered after a tedious convalescence.

In these cases it will be seen that the biniodide was prompt in its action, markedly so in case 1, where the bichloride and the biniodide were both employed, the result being decidedly in favor of the biniodide. Naturally, it will be said, here are only three cases from which deductions are to be drawn, and it is only after it has been carefully used in a large number of cases that its efficacy can be proved. It is for this reason that I call the attention of the members of this society who are in a position to give it a fair and impartial trial, and at some future time give the results of their investigations. I have found the 1 to 4,000 solution of the biniodide non-irritating. I have used it extensively in my gynæcological practice, and in washing out pus cavities, with good results. In it we have a preparation where the smallest amount of drug is used with results far exceeding those of any other antiseptic. On account of the small quantity of mercury, there will be less chance of salivation. The method I have pursued in making the solution is: Take three and a half grains of the salt well triturated in a mortar and rubbed, with one quart of boiling water slowly added, giving a solution of 1 to 4,390. Since writing the above, I have seen in the *Philadelphia Medical Times*, May 16, 1885, that Dr. Panas, eye-surgeon of the Hôtel-Dieu, uses the 1 to 25,000 solution of biniodide of mercury in eye cases. He makes the following statement: "After a number of experiments, I have convinced myself that a solution in water, 1 to 10,000, of the bichloride, or a similar solution, 1 to 25,000, of the biniodide of mercury, is much superior to any other antiseptic solution employed in eye surgery." Here again we have a statement that the biniodide in a smaller quantity is as good an antiseptic as the bichloride.

DR. MONTGOMERY said that his experience has led him to the conclusion that the bichloride of mercury is far more effective as a disinfectant than carbolic acid. Its introduction into the Philadelphia Hospital was due to Dr. Parvin, who found it very satisfactory. In eighteen cases of puerperal fever that were treated with bichloride injections, only three deaths occurred. This success was attributed by the Hospital staff to the use of the bichloride. Dr. Montgomery, in private practice, follows the plan of Dr. Garrigues, of New York, and avoiding intro-uterine injections after labor, but applies pledgets wet with a bichloride solution over the vulva, after carefully cleansing away clots and washing the external parts with a similar solution; this sponging is repeated twice every day. In his last term at the Philadelphia Hospital he had only two cases of puerperal fever, one of which commenced twelve days after delivery. The history of Dr. Bernardy's cases shows an equal, if not better, antiseptic in the biniodide of mercury.

DR. J. V. KELLY, some years ago, had several fatal cases of puerperal fever, and about twenty-five cases that got well. The trouble commenced in a case of abortion in which he did not succeed in removing all of the placenta. He was at the same time attending a bad case of erysipelas, and at that time the relationship of puerperal fever and erysipelas was not known to him. He was on the point of giving up his practice and leaving the town, and he consulted Dr. Goodell on that question. Dr. Goodell discountenanced such action, but advised him, when attending an obstetric case, to remove his coat and roll up his sleeves, and wash his hands and arms well with turpentine, using the nail-brush thoroughly. Since that time he washes his hands in turpentine every day, and again before every case of labor. He also uses a wash of vinegar or carbolic solution before touching a puerperal patient. He has had no puerperal fever or other septicæmic symptoms since that time.

DR. PARVIN said that, as a reference has been made by Dr. Montgomery to my having used corrosive sublimate vaginal injections in the cases of puerperal septicæmic under my care in the Philadelphia Hospital, in my term of service last year, I will refer to the antiseptic treatment in the cases occurring the present year. When I took charge of the obstetric ward, on the first of January, I found five recent cases of septicæmia; two of these patients died; one of the two had apparently recovered, and then was attacked by pneumonia. Quite possibly this pneumonia had a septic origin. Then there were at least seven other cases, but all these, as well as three of the original five, recovered. Injections of a solution of corrosive sublimate, 1 to 5,000, were used in all cases immediately after labor. The external parts were washed, too, with a similar solution. This injection was repeated twice a day in all cases for the first week after labor. While it was used oftener in those having septicæmics, intro-uterine injections were used only when surgical injections failed to correct the offensiveness of the discharge, but as is well known, there may be serious, even fatal cases of septic disease, though the lochial flow is not at all offensive. In private practice, after once washing out the vagina thoroughly with the antiseptic solution, immediately after labor, this need not be repeated unless symptoms demand it, but the bathing of the vulva twice a day with the solution ought not to be omitted. Add, if you please to this treatment, the use of antiseptic napkins, a practice pursued by Dr. Montgomery, of the Philadelphia Hospital, so successfully, and I think we have taken the most important means to guard against the entrance of septic germs after labor. He has had no experience with the biniodide of mercury, and does not know that it will supersede the bichloride. The argument in its favor is as strong as those successful cases can make it, but these are entirely too few, as Dr. Bernardy justly says, to prove its value and its superiority. In one of his cases labor was induced apparently on account of eclampsia. Now, is this the best treatment? Obstetricians are by no means agreed, some of the best condemning such treatment. But the subject is not properly before us now, and therefore no further remarks will be made upon it.

DR. MONTGOMERY uses the bichloride solution as an external wash only, not as an injection. He thinks the records of the hospitals in which injections are used will not show as good results as those in which they are omitted, if septicæmia be not present.

DR. WILLARD had a warning to sound with regard to the use of bichloride solutions of stronger grades. He had been using washes and antiseptic dressings made with a 1 to 1000 solution of bichloride, but in consequence of what was written about the advan-

Case 1—On February 7, '85, I was requested to take charge of Mrs D, who had been confined about six weeks previously It had been her second confinement, the duration of labor had been short and delivery natural, but an extensive laceration of the perineum had occurred No attempt had been made to bring the parts together by sutures On the third evening she had been attacked with severe frontal headache and chills followed by fever, with great tenderness on the region of the uterus There being no improvement in her condition, her medical attendant was discharged, another called in who gave such an unfavorable prognosis that he also was requested to cease his attendance I was finally called in on the above date The patient had well-marked symptoms of septic poisoning, pulse 130 to 140, small and thready, and disappearing under pressure of the finger, temperature 104—105°, slightly delirious, constant vomiting, abdomen swollen and excessively tender, uterus enlarged, extending fully three inches above the pubis In the right side there seemed to be a growth extending up into the abdomen, tender on pressure On making a vaginal examination I found the os dilated so that my index finger could readily enter the uterus Its withdrawal was followed by a gush of highly offensive matter The uterus was surrounded by organized lymph and was immovable The mass on the right side was easily detected and was continuous with the lymph surrounding the uterus The vagina was hot The perinæum was torn to the anus, the surface raw and secreting an acrid matter which scalded the surrounding parts The urine was dark, on standing a reddish material settled to the bottom, it looked like blood corpuscles Dr A E Rowsel examined the specimen and reported it to be slightly acid, no albumin nor sugar, under the microscope occasional pus corpuscles, and swarming with bacteria In conjunction with internal treatment, intra uterine injections were made three to four times a day I first used a solution of bichloride of mercury, one to two thousand This was continued for three days without any marked results The discharges continued as offensive On the fourth day the bichloride was replaced by a one to four thousand solution of biniodide of mercury Within twenty four hours an amelioration of all symptoms took place, the pulse fell to 100, temperature 101° Urine became clear, and the discharge odorless The injections were continued for ten days, their frequency being gradually reduced The uterus returned to almost its normal size and the lymph was gradually absorbed The patient recovered

Case 2—March 19, '85, I was called to attend Mrs H in her first confinement On my arrival found she had been in labor several hours, examination showed the os perfectly dilated, bag of water protruding, vortex presentation, first position, ruptured the amnion The vagina near its outlet was roughened with venereal worts, these spread also over the vulva Labor progressed rapidly and the second stage was happily ended After waiting nearly an hour making compression on the uterus, I made slight traction on the cord, and while doing so, felt, with my hand upon the uterus, a cup like depression of the fundus take place This convinced me that I had an adherent placenta to deal with, and it would be folly to wait any longer, on introduction of the hand I found the placenta completely adherent, one could hardly say which was uterus, which placenta After considerable trouble, I at last succeeded in detaching the placenta it took fully three quarters of an hour On making a second examination to ascertain if all had been removed, my hand came in contact with long shreds hanging from all sides of the uterus, the more I scraped, the more there seemed to be I gave the patient ʒ ij of the extract of ergot The patient did well for ten days, when toward evening she complained of a chill and severe frontal headache I gave her quinine sulph gr x, with morph sulph gr ¼ at one dose and washed out the uterus with 1 to 4,000 solution of biniodide of mercury The pulse was 115, and the temperature 102° The discharge was highly offensive The injections were repeated every four hours On the evening of the next day the pulse was 98, temperature 100°, discharge odorless, and the patient was perfectly well in ten days more

Case 3—April 23, '85 I was requested to call at once to see Mrs K, who was reported in eminent danger of death This was her ninth confinement The history of the previous ones, with one exception, was not good Her labors were natural, but were followed by terrible flooding and protracted convalescence I found the patient in an attack of puerperal convulsions I gave at once grs xxx of potass bromide, and grs xx of chloral hydrate, this dose was repeated in half an hour, ten minutes later another convulsion occurred I then bled the patient freely The os uteri was somewhat enlarged, the cervix soft and dilatable, vertex presentation Dr Custin, whom I had sent for, having confirmed my opinion, and considering that the patient's time was quite up, we decided to etherize, dilate the cervix and deliver The forceps were applied, and traction made at intervals A living child was safely delivered Continuous pressure was maintained over the uterus, but after the expulsion of the placenter the uterus did not contract until it had been washed out with hot water The bromide and chloral was continued every two hours and no more convulsions occurred The patient did well up to the fourth day when the discharges became very offensive, the pulse accelerated, and slight tenderness existed over the uterus, no chill or fever The uterus was thoroughly washed out with a solution of one to four thousand biniodide of mercury Within twenty four hours the discharge became odorless, and the tenderness over the uterus had disappeared The patient recovered after a tedious convalescence

In these cases it will be seen that the biniodide was prompt in its action, markedly so in case 1, where the bichloride and the biniodide were both employed, the result being decidedly in favor of the biniodide Naturally, it will be said, here are only three cases from which deductions are to be drawn, and it is only after it has been carefully used in a large number of cases that its efficacy can be proved. It is for this reason that I call the attention of the members of this society who are in a position to give it a fair and impartial trial, and at some future time give the results of their investigations. I have found the 1 to 4,000 solution of the biniodide non-irritating. I have used it extensively in my gynæcological practice, and in washing out pus cavities, with good results. In it we have a preparation where the smallest amount of drug is used with results far exceeding those of any other antiseptic. On account of the small quantity of mercury, there will be less chance of salivation. The method I have pursued in making the solution is: Take three and a half grains of the salt well triturated in a mortar and rubbed, with one quart of boiling water slowly added, giving a solution of 1 to 4,390. Since writing the above, I have seen in the *Philadelphia Medical Times*, May 16, 1885, that Dr. Panas, eye-surgeon of the Hôtel Dieu, uses the 1 to 25,000 solution of biniodide of mercury in eye cases. He makes the following statement: "After a number of experiments, I have convinced myself that a solution in water, 1 to 10,000, of the bichloride, or a similar solution, 1 to 25,000, of the biniodide of mercury, is much superior to any other antiseptic solution employed in eye surgery." Here again we have a statement that the biniodide in a smaller quantity is as good an antiseptic as the bichloride.

DR. MONTGOMERY said that his experience has led him to the conclusion that the bichloride of mercury is far more effective as a disinfectant than carbolic acid. Its introduction into the Philadelphia Hospital was due to Dr. Parvin, who found it very satisfactory. In eighteen cases of puerperal fever that were treated with bichloride injections, only three deaths occurred. This success was attributed by the Hospital staff to the use of the bichloride. Dr. Montgomery, in private practice, follows the plan of Dr. Garrigues, of New York, and avoiding intro-uterine injections after labor, but applies pledgets wet with a bichloride solution over the vulva, after carefully cleansing away clots and washing the external parts with a similar solution; this sponging is repeated twice every day. In his last term at the Philadelphia Hospital he had only two cases of puerperal fever, one of which commenced twelve days after delivery. The history of Dr. Bernardy's cases shows an equal, if not better, antiseptic in the biniodide of mercury.

DR. J. V. KELLY, some years ago, had several fatal cases of puerperal fever, and about twenty-five cases that got well. The trouble commenced in a case of abortion in which he did not succeed in removing all of the placenta. He was at the same time attending a bad case of erysipelas, and at that time the relationship of puerperal fever and erysipelas was not known to him. He was on the point of giving up his practice and leaving the town, and he consulted Dr. Goodell on that question. Dr. Goodell discountenanced such action, but advised him, when attending an obstetric case, to remove his coat and roll up his sleeves, and wash his hands and arms well with turpentine, using the nail-brush thoroughly. Since that time he washes his hands in turpentine every day, and again before every case of labor. He also uses a wash of vinegar or carbolic solution before touching a puerperal patient. He has had no puerperal fever or other septicæmic symptoms since that time.

DR. PARVIN said that, as a reference has been made by Dr. Montgomery to my having used corrosive sublimate vaginal injections in the cases of puerperal septicæmia under my care in the Philadelphia Hospital, in my term of service last year, I will refer to the antiseptic treatment in the cases occurring the present year. When I took charge of the obstetric ward, on the first of January, I found five recent cases of septicæmia; two of these patients died; one of the two had apparently recovered, and then was attacked by pneumonia. Quite possibly this pneumonia had a septic origin. Then there were at least seven other cases, but all these, as well as three of the original five, recovered. Injections of a solution of corrosive sublimate, 1 to 5,000, were used in all cases immediately after labor. The external parts were washed, too, with a similar solution. This injection was repeated twice a day in all cases for the first week after labor. While it was used oftener in those having septicæmia, intro-uterine injections were used only when surgical injections failed to correct the offensiveness of the discharge; but as is well known, there may be serious, even fatal cases of septic disease, though the lochial flow is not at all offensive. In private practice, after once washing out the vagina thoroughly with the antiseptic solution, immediately after labor, this need not be repeated unless symptoms demand it; but the bathing of the vulva twice a day with the solution ought not to be omitted. Add, if you please, to this treatment, the use of antiseptic napkins, a practice pursued by Dr. Montgomery, of the Philadelphia Hospital, so successfully, and I think we have taken the most important means to guard against the entrance of septic germs after labor. He has had no experience with the biniodide of mercury, and does not know that it will supersede the bichloride. The argument in its favor is as strong as those successful cases can make it, but these are entirely too few, as Dr. Bernardy justly says, to prove its value and its superiority. In one of his cases labor was induced apparently on account of eclampsia. Now, is this the best treatment? Obstetricians are by no means agreed, some of the best condemning such treatment. But the subject is not properly before us now, and therefore no further remarks will be made upon it.

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DR. WILLARD had a warning to sound with regard to the use of bichloride solutions of stronger grades. He had been using washes and antiseptic dressings made with a 1 to 1000 solution of bichloride, but in consequence of what was written about the advantages of stronger solutions, he increased the strength of his dressings to 1 to 500, and within twenty four hours the stools contained bloody mucus and were small and griping, there was vesication about the wound and around the limb under the dressings. Entirely dry dressings had been used, but they had been moistened by pus and serum from the wound. He does not see the advantage of strong solutions in serum as one to 100 or 75. The serum is a decomposable substance, and an uncertain portion of the antiseptic agent is destroyed by it. Weak solutions in boiled water seem more reasonable, and answer every purpose.

Dr. Longaker has been much interested in the third stage of labor, and would like to hear how Dr. Bernardy removed the placenta in the adherent case narrated by him. He has been using Credé's method with great satisfaction. He thinks the hand should be kept out of the parturient canal as much as possible. He does not need vaginal injections after labor, but depends upon outside washes. He finds that the temperature rarely rises during the puerperal period, even after instrumental delivery. He thinks care during the third stage will avoid the necessity for antiseptics.

Dr. Parish agrees with Dr. Parvin's views. He has found a solution of 1 to 1000 of bichloride irritating, and he now uses 1 to 2000 or 5000. Strong solutions cause an appearance resembling erysipelas or inflammation of the derm. Injections are not necessary in every case, when the surroundings are cleanly and the patient a multipara he does not use them, but in primiparæ with contusions or lacerations, and when version or instruments have been employed, he is in the habit of injecting a weak solution of bichloride immediately after delivery, but he does not repeat it, but simply washes out the vagina. Cleanliness of hands, instruments and nurse is the most important point. He has never had any trouble in private practice.

Dr. Bernardy, in closing the discussion, remarked that he thought he had a far better antiseptic in biniodide than the bichloride. He had used the former in surgical cases also, washing out pus cavities, and always with good results. He does not use intra-uterine washes in every case of labor. He has attended since the first of the year about seventy cases of labor, and he has employed the intra uterine injections in only the three cases detailed. In every case of labor he uses carbolic acid soap to cleanse his hands and arms and the external genitalia of the patient. The eclamptic patient had reached or passed her full term, and there was no reason why the child should not be removed. In the case of adherent placenta, it was pulled off forcibly, and a shreddy lining was left in the uterus, as no line of separation had formed. He believes the dangers consequent on passing the hand and arm into the uterus and vagina are much exaggerated, and he does not hesitate to do so when the exigencies of the case demand it.

(*To be continued.*)

STATE MEDICINE

METHOD OF GRANTING THE LICENSE TO PRACTICE MEDICINE

The following report was made to the Medical Society of the State of Pennsylvania at its recent annual meeting, by a committee appointed a year ago to consider and report upon this subject.

By enacting the registration law of 1881, Pennsylvania has declared that the practice of medicine should be subject to legal restriction. And in all parts of the United States, the tendency seems to be towards the establishment and further elaboration of some system of State license, to control entrance upon the practice of medicine.

The only sufficient reason for the existence of any such system is that the license granted shall be reliable evidence of the fitness of its recipient for his work. A system which secures this may be defended—no other can. If a State license helps the community to the choice of competent medical advisers, it at least accomplishes that for which it was instituted. But if it be conferred upon the incompetent as well as upon the competent it serves to confuse and mislead rather than to guide the people to a wise choice.

If, then, we are to have a State license, it should possess a real, fixed and easily ascertainable significance. The license granted under the present system does not conform to this condition. It is practically the diploma of any legally chartered medical college or university having authority to confer the degree of Doctor of Medicine." Being granted by any one of over one hundred competing and interested corporations, upon evidence of fitness furnished by a private unrecorded examination, its significance is neither fixed nor ascertainable, and therefore is not real.

But however uncertain it may be as to its antecedents, the State license does and must confer upon every recipient precisely the same privileges and immunities. Hence the competition in granting it cannot be upward. One corporation cannot put itself ahead of another by granting a better license. But it may outstrip its rival by competing downward and bestowing the license more cheaply by requiring of the recipient a lower grade of fitness.

The medical student may seek the school offering the best teaching, the greatest laboratory and clinical facilities, but he does not seek the school which will compel him to pass the strictest examination before granting him the medical decree. Generally he rather avoids that school. For its diploma confers no greater legal privilege, and, to the mass of laymen carries no greater scholastic prestige than the diploma of its less censorious, less conscientious rival. And he can have no desire to run even a fancied risk of missing the degree, merely for the sake of a harder examination, without any concomitant advantage.

Hence the temptation is continually presented to the faculty of every medical school to endeavor to enlarge its classes by reducing or keeping low its standard of requirements for graduation. Nay, it is more than a temptation In competing for the patronage of students, under the present conditions of public opinion and statute law, a low standard of requirements is an essential to success Because of this downward competition it entails, the power to grant the State license should no longer be vested in medical schools

By general experience publicity has been proven the best shield against laxity of administration and the injustices of favoritism and prejudice In matters of this kind publicity is more than a shield against such abuses It is the destruction of the conditions necessary to their existence And it should be allowed to guard the interests of the community and the profession in the granting of the State license to practice medicine The present method of secret and unrecorded examination is the best that could well be devised to foster abuses of the licensing power How can this be changed? Under their charters medical schools have certain vested rights, which the courts would protect against legislative abridgement Among these is the right to determine how and by whom the fitness of candidates for their degrees shall be ascertained Even if some medical schools would submit to some desirable changes in their methods of examination, while their action would place them at a disadvantage in the competition with other schools unhampered by any such restrictions, a large proportion of the State licenses (all granted by these unrestricted schools) would remain as unreliable and deceptive as ever The colleges cannot be restricted in the granting of their degrees But the degree of Doctor of Medicine was not primarily a license to practice It was made a license by the act of 1881 That act can be repealed, or so amended as to transfer to other hands the licensing power And, here, we believe lies the remedy for those abuses which medical teachers, practitioners and clients should equally deplore To prevent downward competition in the granting of State license, to relieve medical schools of the degrading influence such competition exerts, to regulate the licensing of those obtaining the medical degree from institutions outside the State, to guard by publicity and direct control against the abuse of the licensing power, and to ensure the efficient administration of laws looking to these ends, we recommend that this Society endorse and advocate before the people of Pennsylvania and their representatives in the State Legislature the following propositions

First—The sole power of granting the license to practice medicine in Pennsylvania should be vested in a single board

Second—The board should have no connection with any corporation engaged in medical teaching

Third—The doings of this board, including the determination of the fitness of applicants for the license to practice, should be public and matters of record, and the records open to public inspection

Fourth—To secure the efficiency of the board against incompetent membership and the undue pressure of partisan politics, the medical profession or its representatives should nominate to the Governor a list of persons qualified to perform its duties, from which list the board should be appointed

It is also recommended that a committee be appointed to prepare, in accordance with the views of this society, a form of bill suitable for presentation to the next biennial session of the Legislature, and to report the same to our next annual meeting

Traill Green, Frank Woodbury,
Wm Varian, Lowell M Gate,
John M Deaver, Edward Jackson,
Henry Leffman,

The society accepted the report and proceeded to consider its recommendation *seriatim* After considerable debate, and the rejection of various amendments, they were, by a large majority, adopted

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

The Bouillaud Statue—The Prizes of the Academy of Medicine—Death of Dr Gueneau de Mussy

A statue to perpetuate the memory of the late Professor Bouillaud was erected by public subscription at Angoulême, the town nearest his birth place, which is a village in the department of the Charente The statue was inaugurated on the 16th inst, in the presence of the officials of the town, and of several members of the profession from different parts of the country, as well as of representatives from the various learned societies to which Dr Bouillaud belonged Among the medical men from Paris, I may mention the names of Professor Cornil, Potain and Verneuil, also Dr Léon Labbe, Hospital Surgeon, who were all pupils of the celebrated physician After a few words of welcome from the Mayor of the town, the delegates addressed the assembly in turn, Professor Laboulbene in the name of the Faculty of Medicine of Paris, Professor Vulpian for the Academy of Sciences, and Dr Roger for the Academy of Medicine

The Paris Academy of Medicine distributed its annual prizes at its meeting on the 19th of May The following is a list of the principal recipients and the subjects on which they treated A prize of 2,000 francs was awarded to Dr Paul Richer for his work "On Hysterical Paralysis and Muscular Contractions" 1,500 francs to Dr Pierre Marie, for his memoir "On Sclerosis Disseminated in Patches," 500 francs to Dr William Murrell, of the Westminster Hospital of London, for his work on "Nitro glycerine as a remedy for Angina Pectoris," 500 francs to Dr Henri Huchard, of Paris, for his work on "Angina Pectoris," and another sum of 500 francs was awarded to the same physician for his works on other subjects, the prize of 1,000 francs was divided between Drs Josias and Nocard for their memoir entitled "Experimental and Clinical Researches on the Treatment of Itch and of the Acarus Scabiei by Naphthol," 500 francs with honorable mention to Dr Eugène Rochard for his work "On the Employment of Mineral Waters in Surgical Affections," a special prize was awarded to Dr Javal for his memoir "On Ophthalmometry," the sum of 2,000 francs was divided between Professor Arloing, of Lyons, and Dr E P Guiard, of Paris, the former receiving 1,200 francs for his "Experimental and Comparative Researches on the Action of Chloral, of Chloroform, and of Ether," the latter 500 francs for his "Experimental Clinical Studies on the Ammoniacal Transformation of the Urine" A prize of 3,000 francs was awarded to Professor Denuce, of Bordeaux, for his "Clinical Treatise on Uterine Inversion," a prize of 2,500 francs to Dr A Mairet, of Montpellier for his work "On Melancholic Dementia The sum of 6,000 francs, a portion of the "prix Orfila," was divided between MM Pierre, Rondeau, Gedeon, Meillere, and Alfred Houde, pharmaciens of Paris for their works on "Toxicological Subjects" The prix Saint Paul, of the value of 25 000 francs, which is to be competed for without distinction of nationality or profession, is to be awarded to the candidate who will have discovered a remedy for diphtheria which, in the opinion of the Academy, would be considered the most efficacious for that malady No work was considered worthy of the prize, but by way of encouragement rewards have been distributed as follows Five hundred francs to Dr G Tedoldi, of Castel Ariol, for his memoir which contains a very good bibliographical and historical account of diphtheria and of its treatment by large doses of quinine, 500 francs to Dr Otto Siefert, of Wurzburg, for his memoir on the "Treatment of Diphtheria by Quinoline," 500 francs to Dr Lamarre, of St Germain, for his memoir on the "Treatment of Diphtheria by Paintings with Petroleum Oil and Inhalations with the Vapors of Mineral Essence," 500 francs to Dr Delthil, of Nogent on the Marne, for his memoir on "The Treatment of Diphtheria by a Combustion of a Mixture of the Essence of Turpentine and Tar Gas" The sum of 2,000 francs is offered for the best observations on the part played by the first dentition in infantile pathology The prize was divided as follows One thousand francs to Dr Sejourne, of Revin, 500 francs to Dr Rousse, of Fontenay, 200 francs to Dr I Caradec, of Brest, 200 francs to Dr Corveaud, of Blaye A prize of 1,000 francs was awarded to M Lancry, Interne of Paris Hospitals, and 500 francs to Dr Comby, for their work on "The Etiology and Prophylaxy of Scrofula in the First Period of Childhood" A prize of 2,000 francs each was awarded to Drs Strauss and Roux for their scientific researches during the recent epidemic of cholera at Toulon Dr A J Martin received a prize of 4,000 francs for his work on "Foreign Civil Sanitary Administration"

The readers of the JOURNAL, and medical men everywhere, will regret to learn of the death of Dr Noel Gueneau de Mussy, which has just occurred His death is a great loss to French medicine, and indeed to scientific medicine generally He was a most laborious and conscientious worker, and a cultivated gentleman His writings on medical subjects are too well known to need more than a passing reference at present A B

DOMESTIC CORRESPONDENCE

NEW YORK LETTER

(FROM OUR OWN CORRESPONDENT)

The Meeting of the American Climatological Association, Climatic Treatment of Phthisis, Sanitaria—Contagious Ophthalmia—Long Island College Hospital—The Manhattan Hospital

The second annual meeting of the American Climatological Association, which was held in this city on the 27th and 28th of May, was very interesting and successful, and much good work was accomplished by it The address of the President, Dr Loomis, which was admirable, was largely devoted to the climatic treatment of phthisis It was absurd, in his opinion, to claim for any climate that it exerted a specific influence upon the disease, but localities where there was the greatest purity of atmosphere, and consequent freedom from germs, were undoubtedly the best for the consumptive It was universally recognized that a moist atmosphere favored phthisis, and a moist atmosphere was one laden with germs In this connection he referred to several cases apparently indicating that the tubercle bacillus disappeared from the sputa of the phthisical patient in consequence of the change to an atmosphere unfavorable to the bacillus and where the condition of the patient improved

In the course of his remarks he advocated the building of sanitaria in proper localities, in various parts of the country, for the benefit of those in straitened circumstances, and by way of illustration gave an interesting account of the sanitarium, on the cottage plan, now in successful operation in the Adirondacks The expenses at present were $5 a week, and quite a number of patients had already been greatly benefited by a sojourn there When any place was found to be advantageous by the consumptive, he thought it was advisable that he should remain there until well advanced towards recovery or until the recovery was complete On the evening of the second day of the meeting a reception and collation were given the Association at the University Club Theatre

At the meeting of the Academy of Medicine held June 1, Dr Richard H Derby presented, with some very pertinent remarks, a report on contagious ophthalmia in some of the orphan asylums and residential schools of New York city, which showed a very lamentable state of affairs He had made a personal examination of the eyes of all the children in no less than twenty-four of these institutions, and in the paper gave a synopsis of the condition found in each of them Altogether he examined 7,440 children, and of these, as many as 1,428, or 19-19 per cent, were suffering from blennorrhoeal conjunctivitis or its complications In the first of the asylums which he visited he found 24 5 per cent of the inmates affected with contagious eye disease, in the second, 30 7 per cent, and in the third, actually over 49 per cent—93 children out of 188 When we reflect upon the serious consequences that must inevitably result from this vast amount of ophthalmia, the total blindness or permanent injury of the eyes of these poor children, it is no wonder that the author spoke with some feeling when he called upon the Academy of Medicine to undertake a movement for the suppression of this frightful evil. Among the suggestions which Dr. Derby made were, that all institutions designed for the care of children should be required by law to provide every possible precaution against the spread of contagious eye disease, that they should be required at stated intervals to make reports to the Board of Health of the number of inmates affected with such disease, that they should be required to strictly isolate all children thus affected, that they should be required to provide adequate treatment for every case, including not merely local treatment, but hygienic and general, and that they should be required to take exactly the same precautions to prevent the spread of contagious ophthalmia as of such diseases as scarlet fever and diphtheria. He advocated also the establishment of a special hospital for the reception of such cases, as it was not desirable to take them into the regular eye hospitals, on account of the danger of contagion, and as they could no doubt be treated to greater advantage in such a hospital than in the institutions to which they belonged.

In the discussion which followed, Dr. D. B. St. John Roosa argued in favor of such a special hospital. The cost to the state, he said, of a man with poor eyes, or altogether blind, was a very serious matter, and the reduction of the pauper class was certainly important enough to engage the attention of the political philanthropist.

Dr. C. R. Agnew said that he did not like the idea of entrusting such a matter to the state, but there was a limit to individualism and the power of voluntary efforts. It seemed evident to him, therefore, that there was need of some legislation. He believed in agitation of a subject, and it was his opinion that by judicious efforts of those specially interested in the matter, the public mind could readily be brought to realize the necessity for the adoption of active measures for repressing the existing evil. He thought that before an institution for the care of children should be granted an incorporate existence, it should place on file a certificate to the effect that it had ample provision for the satisfactory maintenance of a certain number of inmates, with a detailed statement of its capacity and accommodations, and that under no circumstances whatever should it be permitted to receive any larger number of children than that specified in such certificate. It was horrifying to think of actually making six or seven hundred paupers in the residential schools of a city like New York, and it was high time that something was being done to prevent the longer continuance of the present state of affairs. It was his opinion that the vast majority of children who contracted chronic conjunctivitis in these institutions never recovered from it, and in after life they would constitute an immense body of drifting and despairing sufferers, in many instances wandering aimlessly about from one dispensary to another. A few years ago it used to be the boast of Fourth of July orators that there were no indigenous paupers in this country, but all this was changed, and there was now unquestionably a large amount of indigenous pauperism here.

Dr. Jacobi expressed the opinion that this disease could never be eradicated from an institution in which it had occurred as long as that institution remained in the same spot and there were still children living in it. All these schools and asylums were no doubt meant to do good, but in reality they accomplished much harm. Outbreaks of ophthalmia were liable to occur, notwithstanding all the measures that could be adopted to prevent them, just as scarlet fever was liable to break out among the children in them. As a rule, diseases like measles and whooping cough were not of a very serious character in private families, but in these institutions measles and whooping-cough were often very fatal or attended with grave consequences, and very frequently phthisis was found to be the result of one of these diseases contracted in early life in such an institution. If, therefore, the object contemplated was simply to add another to our already numerous hospitals, he did not think much good would be accomplished by the present agitation. In such a hospital for the treatment of contagious eye diseases he could not doubt that many cases which were mild when admitted would assume a serious type, and that the danger would be increased, instead of diminished, by placing children in it. The question must come up here, as it had already done all over Europe, whether these institutions for children ought to be multiplied at all, and for his part he felt convinced that it would be a benefit to the community at large if these public asylums and residential schools were done away with altogether. If the same money now expended for the erection and maintenance of splendid buildings and the same care now bestowed upon their management, were given to farming out the children in a judicious manner, he believed, we would be much better off.

At the conclusion of the discussion, Dr. Agnew presented some resolutions to the effect that it was necessary and expedient to take steps to restrain the spread of contagious ophthalmia, and that the Council of the Academy should, in connection with the State Board of Charities, the Society for the Prevention of Cruelty to Children and other charitable institutions, appoint a joint committee to devise some plan for the prompt and efficient accomplishment of this object.

The annual commencement of the Long Island College Hospital was held on June 3, when the degree of M.D. was conferred on 47 graduates.

The corner-stone of the new Manhattan Hospital, at 131st Street and 10th Avenue, was laid May 23 with appropriate ceremonies. The hospital is being built by the Manhattan Dispensary Association, which has maintained a dispensary service in Harlem ever since 1862, but has not hitherto engaged in hospital work proper. Only one wing of the building, as eventually contemplated, will be erected at present, and it is expected that it will be ready for occupancy by the 1st of October. The nearest emergency hospital up to this time has been the city branch hospital at 99th street, and the necessity for one further up town became so great, especially in view of the rapid increase of the population in this growing district, that the gentlemen interested in the Manhattan dispensary raised a subscription for the institution

P B P

THE TREATMENT OF DIPHTHERIA

Dear Sir —Having been much interested by Dr Nunn's article on the treatment of diphtheria, published in the JOURNAL of June 13, I wish to testify to the good effects of the biniodide of mercury in my hands For the past six years I have depended upon it entirely for constitutional treatment, and in that time have not had a single case of paralysis, and a much smaller proportion of fatal cases, than with any other treatment I have ever used For local treatment I have generally used tr ferri chlor, 1 part to 2 parts of water, applied every two or three hours with a brush

Respectfully,

D I BROWN, M D,

Michigan City, Ind, June 15, 1885

BOOK REVIEWS

CLINICAL STUDIES ON DISEASES OF THE EYE INCLUDING THOSE OF THE CONJUNCTIVA, CORNEA SCLEROTIC, IRIS AND CILIARY BODY By DR FERDINAND RITTER VON ARLT, Professor of Ophthalmology in Vienna Translated by LYMAN WARE, M D, Surgeon to the Illinois Charitable Eye and Ear Infirmary, etc, Chicago 8vo, pp 325 P Blakiston, Son & Co, Philadelphia, 1885

It has been a pleasure to have such an admirable translation of Dr Ferd Ritter von Arlt's classic work entitled "Klinische Darstellung der Krankheiten des Auges, etc," presented to us for review The original, which was first published in Vienna as late as 1881, and which has ever since its appearance been looked upon by the ophthalmological world as a safe and valuable guide to the correct understanding of those diseases of the eyes which can only be mastered by many years of careful study in situations presenting unexceptional clinical advantages, was written under unusually favorable conditions The author, a man of great experience, who so happily possesses a discernment ever ready to grasp any distinctive features that might arise, combined with so rare a judgment as to be able to successfully combat any injurious symptom by therapeutical means, has in this work given the results of a long series of clinical researches extending over a period of nearly fifty years That such an exposition in book form should possess for both the general practitioner and the special scientific observer, a worth that is almost incalculable, is at once apparent, and yet, by reason of the want of an English translation, the value of the work has remained a locked secret to many English and American professional men, who are unable to understand the language of the original It is for these that Dr Lyman Ware, of Chicago, has given us an English version of this almost unique addition to ophthalmic literature He is to be congratulated upon the success of his undertaking After careful comparison with the original, we find that the American edition, which is published in the usual good style of the Blakistons, is remarkably free from interpolations (a fault too often found in the average translation) and unexceptionably clear of literalism The German sentences have been anglicized into smoothly running English expressions of synonymous signification A few useful additions in reference to the value of jequirity and cocaine have been added

We can unreservedly offer and recommend Dr Ware's translation of von Arlt's work upon the "Clinical Studies on Diseases of the Eye" to those of our colleagues who are compelled to restrict their studies upon the subject to the English language, as one to be relied upon, it being a true and conscientious exponent of the views and opinions expressed by the great and distinguished author

OFFICIAL REGISTER OF PHYSICIANS AND SURGEONS WHO HOLD CERTIFICATES FROM THE BOARD OF EXAMINERS OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA, January 31, 1885 To which has been appended a complete List of those who hold Certificates from the Homœpathic and Eclectic Boards, also, A Complete List, as far as procurable, of all Persons Practicing Medicine in this State without a Certificate from either of the Boards Second Edition, revised and published by the Board R H PLUMMER, M D, Recording Secretary, San Francisco

Beyond the fact that the verb "practise" is persistently misspelled in this pamphlet (and the additional fact that *either* is wrongly used on the title-page), this Official Register seems to be all that can be desired, and when it is remembered that the compilation of it has involved an enormous amount of labor, it is only justice to Dr Plummer to say that he is deserving of very great praise

It does not appear from this pamphlet why there are three Boards of Medical Examiners for the State of California, nor does it appear credible that with three Boards there should be 482 illegal practitioners in the State It is reasonable to infer that the State would be fairly overrun with illegal practitioners if there were two or three more Boards In addition to the list of practitioners in the State, the Register also contains a copy of the laws regulating the practice of medicine in California, with the decisions of the Supreme Court in two cases, the minimum requirements for a course of medical instruction, the Code of Ethics, the San Francisco and Chicago fee bills, a directory of medical colleges, hospitals, dispensaries, medical societies, asylums and boards of health in the State, and a list of the California mineral springs, making it a very convenient reference book We hope that when the third edition is issued the list of illegal practitioners will be somewhat shorter The Register states that the illegal practitioners are liable to prosecution and fine upon the complaint of any citizen, though we are at a loss to know why the Examining Boards should wait for such complaint It would seem that one of the three Boards might take the initiative in complaining

ASSOCIATION ITEMS

INTERNATIONAL MEDICAL CONGRESS COMMITTEE

When that part of this Committee consisting of one from each state and territory was announced in the meeting in New Orleans, Connecticut, North Carolina, Oregon and Wyoming Territory were omitted The President, J S Lynch, of Baltimore, who occupied the chair at the time, has supplied the defect by appointing Dr W C Wile, of Sandy Hook, Connecticut, Dr N J Pittman, of Tarboro, N Carolina, Dr E C Fraser, of Portland, Oregon, and Dr J J McAchran, of Laramie City, W T, as members of the Committee

The whole Committee is expected to meet at the Palmer House in this city (Chicago) on the 24th inst, in accordance with the official notice published in our last week's issue

MISCELLANEOUS

The Importation of Infected Rags —The Secretary of the Treasury has issued the following circular "Whereas it has been conclusively shown to the department that, under existing laws, no general regulation can be legally framed whereby the disinfection of old rags can be accomplished in foreign ports to the satisfaction of the several health authorities, therefore it is ordered 1 That all circulars of this department concerning *the disinfection* of imported old rags are hereby revoked, and that old rags hereafter imported from foreign countries shall be admitted to entry at the Custom-House only upon the production of permits from the health officers at the ports of importation duly authorizing the landing of the same 2 Vessels carrying old rags arriving at any United States quarantine will be detained by the quarantine officers, and held subject to the order of the proper health authorities at the port of destination"

Massachusetts Medical Society —At the one hundred and fourth annual meeting of this Society, held in Boston June 9 and 10, the following officers for the ensuing year were elected President, Charles D Homans, of Boston, Vice-President, Dr Munsell, of Harwich, Treasurer, Dr Frank W Draper, of Boston, Corresponding Secretary, Dr Charles W Swan, of Boston, Recording Secretary, Dr Francis W Goss, of Roxbury, Librarian, Dr Edwin H Brigham, of Boston, Orator, Dr R M Hodges, of Boston, Anniversary Chairman, Dr Harvey, of Westbury The various committees chosen were the same as last year

Collective Investigation in Russia —The medical societies of Russia formed, at a recent meeting held in St Petersburg, a Collective Investigation Committee for Russia, which will communicate with the English Committee Professor Lesshaft and Dr Monastyrski are the Secretaries The subjects for collective investigation will be those proposed by the International Committee, and with the same tables of questions, namely rhachitis, calculus, typhus, exanthematicus, acute rheumatism, and diseases of the age of school-attendance

The Comma-Bacillus Proposal for a Commission of Inquiry —Mr W Watson Cheyne, in a note to the *British Medical Journal* of May 30th, thinks that the only way in which the questions in dispute between himself and Dr Klein can be decided, is by repeating the experiments before a competent commission, and says

The subject is of such immense importance that it certainly should not be allowed to rest in its present *unsatisfactory state* There are four statements made by Dr Klein which ought, I think, on account of their importance, to be submitted to a commission

1 Dr Klein states that in the cæcum of healthy guinea pigs the "comma-bacilli of Koch" are present I have investigated this matter, and cannot confirm this statement Let us repeat the experiment side by side before the commission

2 Dr Klein states that after isolation by ligature of a loop of intestine in monkeys, and injection of sulphate of magnesia into the part between the ligatures, comma bacilli appear in the contents of this part which he is "unable to distinguish from the choleraic comma-bacilli" I have not repeated this observation, let it be done before the commission

3 Dr Klein states that the comma-bacilli of the saliva can be cultivated in neutral jelly, and, after acclimatization in this medium, can be made to grow in the same material as is used for the cultivation of the cholera-bacilli, and that then the cultivation of the two organisms are identical in every respect I cannot confirm the statement that the comma-bacilli of the saliva can be grown in neutral jelly The observation ought to be repeated

4 Dr Klein makes various statements with regard to the behavior of cholera-bacilli with acids which are in apparent contradiction to my results, and which it would be well to test before the commission, not that this is an essential point, but it would serve to illustrate the methods employed, more especially the sufficiency of the control experiments

It would also be well to repeat some of Dr Koch's recent experiments on animals, in order to give Dr Klein the opportunity of proving satisfactorily, by control-experiments, that the results are due to septicæmia or to the surgical interference

As regards the conditions under which the experiments should be done, it seems to me essential that, having regard to Mr Dowdeswell's experience, they should be carried out in a laboratory in which cultivations of cholera-bacilli have not previously been made, that the apparatus used—more especially the syringes, needles, etc —should be new, that every step we take should be in the presence, and subject to the criticism, of each other and the members of the commission The commission would not, of course, be asked to express any opinion as to Dr Koch's views, but merely to state *the facts which* they see

THE NEW YORK COLLEGE OF MEDICINE AND SURGERY —The bill for the incorporation of this proposed pernicious addition to the medical colleges of New York has been vetoed by the Governor of that state

CHARITY-MATCHES OF THE SCOTTISH FOOTBALL ASSOCIATION —Last year, says the *British Medical Journal*, of May 30, we drew attention to the very commendable practice of the Scottish Football Association, by which the surplus funds resulting from the drawings at the various Charity Cup matches were divided amongst several of the charitable institutions of Glasgow This plan has been followed again this year, and different charities have been benefited to the extent of £520, the Royal and Western Infirmaries heading the list with £100 each During the ten years that these matches have been instituted, no less a sum than £5,240 has been disbursed by the Association from this source

AMERICAN LARYNGOLOGICAL ASSOCIATION —The seventh annual congress of the American Laryngological Association will be held in Abstract Hall, Lafayette Avenue, Detroit, Mich, June 24, 25, and 26, 1885 The profession is cordially invited to attend the sessions of the congress

THE REPORTING OF CONTAGIOUS DISEASES —A SUGGESTION TO THE BOARD OF HEALTH —Dr J W Brannan, of New York, makes the following very sensible suggestion ' I see by the last *Record* that the Board of Health complain that many physicians do not report promptly their cases of contagious disease I would suggest to our Health Board that if they would simplify the work of reporting there would probably be less neglect of the regulations on the part of physicians In Boston all physicians are provided by the local authorities with postal cards, on one side of which is printed the address of the Board of Health, and on the other very much the same form of words that is found on slips furnished to physicians in New York In case of contagious disease the blank spaces in the form are filled out, the card is dropped into a post box, and the matter is over I commend the above plan to our Board of Health, that they may secure greater efficiency of service "—*Medical Record*, June 13, 1885

DANGERS FROM INFECTED STRAW —A dispatch from New York, of June 16, states that the dealers in hay and straw propose to begin active measures against the steamship companies for their neglect to destroy the straw bedding used by the steerage passengers unless the companies mend their ways very soon A leading hay dealer says " The public does not know its danger from this source When the Pilot Commissioners forbade the further throwing of the straw in the harbor, the companies invoked the aid of licensed vendors to help them get rid of the old bedding It was turned out on the piers, and these vendors were either made a present of it or bought it at a low price They now take it to Hoboken and Jersey City, where it is retailed and sold to crockery dealers and others for packing purposes We are taking all sorts of precautions against the spread of cholera, and here, right under our noses, a stuff which easily carries infection and which is likely to have disease germs within it, is not only permitted to be landed to the amount of 100 tons weekly, but is scattered broadcast all over the country, carrying possibly pestilence with it "

CHOLERA IN SPAIN —A dispatch from Madrid, of June 16, states that in the Province of Castellon de la Plana there were eighty cases of cholera and sixty deaths on June 15 Thirty thousand people have fled from Murcia owing to the terrible dread of the disease which has taken possession of the people In the city of Murcia alone, on June 15, there were, according to the latest rumors, sixty-four new cases of cholera and thirty-nine deaths In the Province of Murcia outside of the city there were fifty cases of cholera and sixteen deaths within the same period The *Official Gazette* confirms the statement that cholera is raging in the Provinces of Valencia, Castellon de la Plana, and Murcia, and in the city of Madrid The Opposition newspapers, on the contrary, deny the existence of Asiatic cholera in the city of Madrid

THE ITALIAN MEDICAL ASSOCIATION will hold its eleventh annual meeting in Perugia in September, 1885 at which there will be an exhibition of medicinal articles, and of surgical and sanitary instruments and appliances

DEATH OF DR THORBURN —The English journals announce the death of Dr John Thorburn, Professor of Obstetric Medicine at the Owens College and Victoria University Manchester His "Practical Treatise on the Diseases of Women" was published just before his death He was instrumental in the foundation of the British Gynæcological Society

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JUNE 6, 1885 TO JUNE 12 1885

Major B E Fryer, Surgeon, U S Army, ordinary leave of absence extended six months, from July 1, 1885, on surgeon's certificate of disability (S O 129, A G O, June 6, 1885)

The order directing Major P J A Cleary, Surgeon U S A, to change station from Ft Union, N M, to Ft Lyon, Col, is revoked (S O 81, Dept Mo, June 8, 1885)

Captain Charles Richard, Assistant Surgeon, granted leave of absence for three days (S O 125, A G O, June 5, 1885)

First Lieutenant C N B Macauley, Assistant Surgeon, relieved from duty at Ft Sisseton, D T, and ordered for duty at Ft A Lincoln, D T (S O 61, Dept Dak, June 5, 1885)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED JUNE 13, 1885

Walter Wyman, Surgeon, to proceed to New York, N Y, and assume charge of the Service, relieving Surgeon Sawtelle, June 8, 1885

Banks, C E, Passed Assistant Surgeon, granted leave of absence for thirty days, June 12, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol IV | CHICAGO, JUNE 27, 1885 | No 26

ADDRESS

IN OPHTHALMOLOGY, OTOLOGY, RHINOLOGY, AND LARYNGOLOGY

DELIVERED IN GENERAL SESSION AT THE THIRTY-SIXTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION MAY 2, 1885

BY JOSEPH A WHITE, A M , M D ,
SENIOR SURGEON OF THE RICHMOND (VA) EYE EAR AND THROAT INFIRMARY

MR PRESIDENT AND GENTLEMEN

The time-honored custom, in accordance with a by-law of our association, of an annual report of the year's advances, by the chairman of this or that section, is one not so easy to comply with, because the advances in any one branch of medicine or surgery in one year are not always tangible enough for specification Medicine and Surgery in all their branches go forward and onward at all times, imperceptibly and slowly, little by little, each little adding to what has been known before, each worker and observer adding his mite to the irresistible onward march, but we cannot always say that this or that special addition to our knowledge was made in the last year At times the steady progress forward brings us to a point where the medical horizon is lighted up, like a meteor flashing suddenly across the heavens, by some apparently brilliant discovery, whether the natural outcome of such progress which has led up to it, or the result of purely accidental causes, or empirical experimentation. But how often have such been meteors indeed, coming like a flash, rousing up the whole medical world, and disappearing with the same rapidity, to be lost in the gloom of empiricism. The examples of this are innumerable in every department of medicine and surgery Operations, methods of treatment, remedies, have been extolled and lauded as making an era in medicine, have been universally adopted, ran a brilliant career for a while, and died the death What better example of this can be found than the operation of "Optico ciliary Neurotomy" in eye surgery, which had such a brilliant reception a few years back Everybody did it, but its apparently good results proved fallacious, it did not stand the tests of time, and what ophthalmic surgeon performs that operation to-day?

Again, look at Graefe's modified linear extraction of cataract, which universally replaced the flap operation and held its own so long It has been recently said that nothing remains of it but the knife and the iridectomy And how long will even this much last? They are tinkering now at the remains, and the French school is in a fair way to discard iridectomy altogether, and return very nearly to the old flap extraction again

In the face of these examples it is difficult for any one to say what is, and what is not, an advance in the right direction In looking back at the literature of, and the work in, the field of Ophthalmology, Otology, Rhinology and Laryngology for the past year, we can't help but see the steady onward march in these special branches, more particularly in rhinology Advances have been made both by grafting new ideas and by applying the pruning knife to old ones. In ophthalmology much has been done by both methods The researches into the pathology of sympathetic ophthalmia have been of considerable value; but the vexed question of its mode of transmission has not been as yet satisfactorily settled, whether it is a reflex neurosis, or a septic infection, is still undecided However, the opinion is steadily gaining ground that the optic nerve and its sheath, forming as it does a direct connection between the uveal tracts, along which micro organisms can pass, play the most important rôle in communicating sympathetic disease

In the treatment and prophylaxis of sympathetic ophthalmia, enucleation of the eye-ball holds such prominent place that its modifications or substitutes are necessarily of great importance The failure of the recently much lauded substitute, "optico-ciliary neurotomy," has led to another effort to replace enucleation by what is called "evisceratio, or exenteratio bulbi," the principal apostle of which is Alfred Graefe It consists in cutting out the cornea and corneo-scleral border behind the insertions of the ciliary bodies and scooping out the entire contents of the sclerotic, leaving that membrane intact and closing the conjunctiva over it by sutures The advantages claimed are, that it diminishes the attendant risks of enucleation (quite a number of deaths being on record as a result of this operation), that there is no danger of meningitic complications, as the lymphatic vessels of the capsule (Tenon's) are not opened, and that it affords a much better and more movable stump for an artificial eye But the healing process is much more tedious than after enucleation The originator of this operation was, however, Dr Henry Noyes, of New York, and not Prof Alfred Graefe Dr Noyes speaks of it in his book, p 189, in treating of Hypopyon Keratitis

The treatment of detachment of the retina, a subject of great importance to ophthalmologists, has seemingly had some advance, although still purely experimental. Whilst iridectomy and galvano-cautery puncture have been tried with varying success, Wolfe's scleral puncture seems to have received most favor and gives the best results, although, as far as I can make out, it is merely a modification of Graefe's operation.

The treatment of purulent ulceration of the cornea by the galvano cautery, although not an offspring of the past year, seems now for the first time to have obtained a foot-hold in ophthalmic therapeutics, because of the discovery of the anæsthetic properties of cocaine.

In regard to "Trachoma," probably the most intractable of eye affections, it was thought a little more than a year ago that its death knell had been sounded in the "*Io triumphe*" that greeted the advent of Jequirity. But the enthusiasts on this subject soon received a shock in the reports of its failure to cure, and worse still, in its disastrous effects in entirely destroying eyes subjected to its influence.

These unfortunate results not only dampened the enthusiasm with which it was received, but led many to discard it altogether, as involving more risk of destruction than chance of relief.

If the past year had done nothing else, it has given us more certain indications for the use of Jequirity, and taught us that it is a valuable remedy in suitable cases. The great danger of diphtheritic ophthalmia, with destruction of the eye following its use, should not be lost sight of. It should never be used in follicular granulations, nor when the conjunctiva is swollen and succulent, when there is great hyper secretion or any acute inflammatory symptoms present. Even in undoubted cases of true trachoma it seems rather a remedy for the accompanying pannus of trachoma than for the granulations themselves. It is preferably applicable to, and beneficial in cases of dense pannus. Even then its effect should be closely watched and controlled, and not over a 2 per cent solution should be used, and not repeated for twenty four hours. In mild cases of pannus a solution of one fourth of 1 per cent is sufficient. As our experience of the remedy accumulates, and the indications become more and more precise, I doubt not that it will prove more and more valuable. For my part, I handle it with the same caution that I would dynamite, in constant fear of an explosion, although where I live the occasions for its use are few and far between. During the six years I have lived in Virginia, with a large and constantly increasing clientèle, I have never seen, either in dispensary or private practice, a single case of trachoma in the negro race, and only eight or ten among the whites.

Probably the most important scientific work of the past year in ophthalomology has been Landolt's labors to find an exact method of determining the amplitude of the convergence (partly published in the thesis of Miss Ellaby, 1884, and more fully in the "Traité d' Opthalmologie." Wecker-Landolt, in the 'Archives d' Opthalmologie," April, 1885.) None of the methods heretofore given are at all exact or reliable. Graefe's test, the one most commonly in use, being frequently valueless, and probably on account of this inaccuracy, the frequency of the so called muscular asthenopia is much exagerated. Binocular fixation for short distances is one of the most important functions of the eye, and it taxes both the internal recti and the ciliary muscles. Any disturbance in the normal relation of these two acts brings about asthenopia. Hence the exact determination of the converging power is just as important in dealing with these cases, as the determination of the refraction and accommodation power. And it was here that we have always experienced our difficulties, inasmuch as we had fixed formulas and methods of determining refraction and accommodation, and none but imperfect or unreliable ones for the convergence. The amplitude of convergence has been determined by others with equal accuracy, but no definite method was formulated that gave satisfaction. Landolt's method is the best solution thus far of this subject. He has taken the metric angle (the point of intersection of the visual lines) as suggested by Nagel for a unit of measure of the convergence, (am.) The amplitude of convergence is represented by the difference between the maximum (p. am.) and the minimum (r. am.) The maximum of convergence can be determined by his opthalmodynamometer, and when the punctum remotum of the convergence is at a *finite* distance, which is abnormal, it can be measured in the same way. But as the majority of eyes can even diverge somewhat for distance the minimum of convergence is nominally a negative quality. He has determined the maximum or punctum proximum of convergence to average 9.5 am (10½ cm from the eye), the minimum, 1 am., hence the amplitude of C. (a p r) is about 10.5 am. Most of our occupations are at 30 or 35 cm., and it therefore seems that we have an amplitude of convergence far in excess of the demand. In reality, however, experience proves that close and continuous work requires about ⅔ of the convergence force to be held in reserve. For example, when reading we use 3 am of convergence, but in order to keep up the work without fatigue we will require the reserve force of 6 am., or the total amount of the convergence. This is equally true of the accommodation. The value of this *quota* of convergence or accommodation is not a fixed quantity but always bears a fixed relation to the total amount of convergence of the individual. We must, therefore, determine its value in each case. As the maximum of convergence ought always to be three or four times greater than the convergence corresponding to the distance of the work, asthenopia must result if this is not the case. I have not space or time to further develop this subject, but its practical value on the determination and correction of muscular insufficiency by operation or otherwise is apparent.

Bearing closely upon the same subject of troubles of the recti muscles and the operative procedures for this correction, are the investigations of Motais in regard to the construction and relations of the capsule of Tenon, which he claims to be composed of two separate and distinct membranes, super-imposed one on the other, an internal or bulbar capsule, a serous membrane for the enarthrodial articulation of the eye, the other an aponeurosis common to the muscles This may influence and modify the operations for strabismus and muscular asthenopia, particularly the readjustment or advancement of the internal rectus muscle

COCAINE

But the most brilliant event of the year was the introduction of cocaine into the surgery of eye, ear, throat and nose affections

Since Dr Koller of Vienna, first called the attention of the profession a little more than six months ago to the local anæsthetic effects of this remedy, which has been in the pharmacopeia for twenty years, so much has been said and written about it that it is useless to give it more than a passing mention Already its position in opthalmic, aural and throat therapeutics is a permanent one

Its effect upon the eye is marvelous and in a less degree almost equally so on all mucous surfaces Already we wonder how we have done without it, but like all new remedies we try to make it do more than we can expect, become disgusted because we cannot do so and report the failures of cocaine Without doubt we will also meet with people of a peculiar idiosyncracy upon whose mucous surfaces it will not produce its physiological effects, or, peculiarly susceptible to its influence with alarming results, this should not make us decry such a boon to suffering humanity, for if we did and threw aside all other remedies to which the same reasoning might apply what would be left in the pharmacopeia? When its exact applicability has been determined by experience its range of usefulness will be found a very large one

Its specific action in paralyzing sensation of mucous surfaces seems to be due to its stimulation of the vaso motor nerves, causing contraction of the vessels of the terminal bulbs of peripheral nerves and diminishing their blood supply

It is seemingly, therefore, a stimulant of the sympathetic, either by reflex action or by direct influence upon the peripheral nerves That its influence is upon the sympathetic and not by local paralysis of the sensory nerves, is probably demonstrated by the relaxation of the orbicularis palpebrarum, or rather by the tonic spasm of the so called Muller's muscles of the eyelids, by the dilatation of the pupil without paralysis of accommodation, and by the collapse of acutely swollen turbinated corpora cavernosa

However this may be, it has created a revolution in ophthalmic surgery in diminishing by more than half the necessity of chloroform or ether narcosis in operations, besides the other advantages gained from the local anæsthesia in the treatment of many painful and annoying eye affections By the local anæsthesia and the relaxation of the lids we are enabled to examine the anterior parts of the eye, and by the dilatation of the pupil to use the ophthalmoscope with more satisfaction One fact of importance in relation to such operations as cataract extractions without iridectomy, corelysis, etc , is, that the dilated pupil does not contract when the humor is drawn off, as is the case with other mydriatics

It is most reliable in cataract extractions, in sclerotomy (with addition of eserine), in all conjunctival and corneal operations, and in strabismus, it is of great value in enabling us to note the exact tension of the eye (although its application somewhat reduces the existing tension), it is useful and preferable to atropine in central opacities of the lens, and according to Weber, in corneal perforations with prolapse of iris, which it tends to reduce It is almost useless in children, or in stupid, obstinate or very anxious patients, who will be as unruly during operations as if it had not been used , in complicated cataract, in iridectomy for glaucoma when the eye is much inflamed, and in all prolonged operations, such as the advancement of a muscle.

It produces some, but very little effect in cases of cyclitis or irido choroiditis, or in inflamed eyes with submucous infiltration, as in hypopyon keratitis, in enucleation, and on the sensibility of the iris in iridectomy Dr Eugene Smith, of Detroit, however, injected it into the anterior chamber before making the iridectomy, with the result of perfect anæsthesia and no bad results

In enucleation, if the eye is not sensitive to pressure, cocaine produces sufficient anæsthesia to make it a bearable operation, especially if the solution is flowed over the insertions of the muscles after their exposure, but if sensitive to pressure from ciliary irritation, cocaine produces no appreciable effect, the mere pressure of the strabismus hook causing pain I have performed over 200 operations under its influence, and only in very few cases had to resort to chloroform or ether, I have remarked that where there is considerable thickening of the submucous tissues, it does not produce its characteristic effect In a recent case of rapidly advancing hypopyon keratitis, after trying every other treatment, I had recourse to Saemisch's operation The conjunctiva and the subconjunctiva were much swollen and thickened A ten per cent solution frequently repeated for twenty minutes produced so little effect that the operation gave exquisite pain, which continued for some time afterwards My experience is that its effect on the eye is produced in from two to ten minutes, and passes off in about half an hour, unless the effect be kept up by repeated applications, which it can be indefinitely

As to the dangers and failures published by some authors, I am inclined to make light of them because of my own happy experience with the drug The failures to produce physiological effects on the one hand, and the exaggeration of its effects (notably the case of Dr Stephens) on the other, may have been due to an idiosyncrasy against the drug Moreover, in some of these cases the symptoms reported were only such as I have frequently seen from nervous shock after eye operations without narcosis I have seen it used with great freedom locally in eye, ear throat and nose affections, over one grain injected hypodermically, and know of a person who took five grains by the stomach at one dose, and have not yet encountered any of the reported constitutional symptoms

In otology, rhinology and laryngology it is also a great boon, enabling us to make satisfactory examinations in sensitive cases in which they would otherwise be almost impossible, and to perform such operations as removal of polyp of the ear and, nose, paracentesis of the drum head, to apply the galvano cautery to the naso pharyngeal space, and to pass instruments through the nostrils, as, for example, the cold snare, for growths and hypertrophies Dr Jellinch, of Vienna, was the first to apply it to the diagnosis and treatment of naso pharyngeal and laryngeal troubles In colds in the head, when the nostrils are obstructed by the swollen tissues the application of a ten per cent solution will cause shrinkage of the turbinated corpora cavernosa and restore the patency of the nostrils This effect is due to its stimulant action on the vaso motors, constricting the blood vessels and reducing the blood supply, and is equally applicable to many cases of chronic turbinated hypertrophy although it does not so affect them all I have met cases in which after repeated applications there was no shrinkage, because of the density of the submucosa and where for the same reason, very little anaesthetic effect was induced, just as in the inflamed conjunctiva with chronic subconjunctival thickening Since its introduction, the necessity of educating the throat to the manipulation with instruments has been done away with, as one application so diminishes its sensibility that gagging and retching are prevented In ulcerative laryngitis and in ulcerative sore throat this same effect enables the patient to take nourishment in comparative comfort

This is but a meagre and brief review of the action of this invaluable addition to our armamentarium, but it covers in a short space the whole field of its known usefulness in the special work to which I have referred Probably no remedy ever was so extensively used and investigated in such a short time, and we have possibly not yet reached the limit of knowledge as to its application Time and further experience only will do this for us

Cocaine is, as it were, the connecting link in the year's work between the science of ophthalmology and the fields of otology, laryngology and rhinology, and brings us to the consideration of these subjects

REFLEX NEUROSES OF THE NOSE

In these fields the most decided advance has been in the investigations tending to the solution of the vexed and important questions regarding the relation of nasal pathology to certain neuroses heretofore referred to other causes That a "reflex producing area," exists in the nasal fossae has been demonstrated by the investigations of Prof Hack, of Freiburg, and Dr John Mackenzie, of Baltimore, working independently of each other but arriving at the same practical conclusions, although differing somewhat as to the exact locality Dr Mackenzie claims that the "sensitive area" is principally confined to the posterior end of the inferior turbinated tissue, and the septum opposite, the part dominated by the spheno palatine nerve and that the reflex phenomena arising from its irritation (such as cough, asthma, hay fever, etc, etc), in some persons and not in others, is due to a certain abnormal excitability of the *reflex* (or vaso motor) *nerve centres*, but, that such reflex phenomena (and he speaks particularly of so called hay asthma), cannot take place without engorgement of the turbinated tissue, the main spring of the machinery which puts the pathological process in motion Prof Hack at first claimed, that the reflex phenomena started primarily from engorgement and irritation of the anterior end of the lower turbinated tissue, and only secondarily from irritation of other localities, although in his last publications he has somewhat deviated from this view He considers, however, the point of greatest excitability to be at the *terminal* filaments of the nerves in the nasal mucosa instead of the nerve centres themselves Both Hack and Mackenzie, whilst differing as above stated, agree in the mucosa over the erectile tissue of the turbinated bones, and especially the *lower one*, being the principal or sole agent in the production of reflex phenomena That this may be so in many cases, is supported by clinical experience, and Dr Roe, of Rochester, has adopted the same view as a result of his observations Prior to the publications of either of these authors, Drs Daly, of Pittsburg and Fraenkel, of Berlin, had called attention to the reflex asthma, accompanying pathological changes in the nasal fossa, and which was relieved by the removal or cure of the pathological conditions, but neither attempted to localize or to define any special sensitive area The observations of others, would tend to show that the limitation of the reflex producing power to any one part of the nasal mucosa, is too contracted a view of this very important question, because the probability is, that reflex phenomena are produced by sensitiveness of other points of the nasal mucous membrane with irritation of its sensitive nerves, as elsewhere in the body for example in the sexual organs Again, it is doubtful if engorgement of the turbinated tissues is essential to the production of these phenomena as claimed by Hack and Mackenzie If so, why do such a small minority of of turbinated hypertrophies cause asthma? Hopmann (Cologne), has reported cases of asthma occuring in atrophic rhino-pharyngitis, which were proved of reflex origin, because they were relieved by the use of Gottstein's wool tampons Bosworth has also recorded a case of recurring spasm of the glottis of reflex origin in a subject of the same disease which was cured by treatment of the intra nasal trouble I have recently had under treatment, a case of obstinate 'reflex cough" in a case of rhino pharyngitis atrophica with very spacious nasal fossa, with shrinkage instead of swelling of the turbinated tissues, which has been entirely relieved of the cough by the improvement of the local diseases

Whilst the investigations on this subject are of great and lasting value to the science of rhinology, and all honor is due to the investigator, these clinical facts show that much is yet to be done for a proper and satisfactory elucidation of the question of the relation of nasal troubles to these various reflex disorders, heretofore supposed to arise in the larynx, the bronchi, the stomach, or in some obscure nervous disturbance. It is a question of paramount importance, more especially in relation to that intractable affection known as hay asthma and megrim or sick headache, and one of equal interest to the general practitioner and to the specialist. The etiology of these disorders being elucidated, enables us to apply a rational treatment with more probability of cure than the heretofore empirical methods could give us. The good results of the above observations in treatment have been demonstrated by the number of recorded cures.

Cases of obstinate irritative cough, more especially annoying at night, have been cured by simply ridding the patient of a slight chronic rhinitis, which caused the cough by the irritation of retained secretion on sensitive spots of the nasal mucous membrane. You are all familiar with the efficacy of the old nursery remedy of a drink of water for a child's cough at night, which is explained by its ridding the posterior nares and pharynx of any secretion that might have accumulated and which was the irritating cause, and also in all probability there can be found sensitive spots in the pharynx, the irritation of which will cause reflex phenomena. The record of the cases of reflected neuroses of the nose, includes besides cough, megrim or sick headache, cephalalgia, tinnitus aurium and giddiness unaccompanied by deafness, otalgia, certain apparent disturbances of the circulation, such as slight and recurring œdema of the face and eyelids, asthmatic attacks, and that annoying group of symptoms known as hay fever, hay asthma, rose cold, etc., etc., all of which have been shown to be caused by pathological nasal changes and cured by their removal. I have also met a case of recurring conjunctivitis of same causation. Any treatment therefore of these affections, which, in the face of these investigations and clinical facts, would leave the possibility of nasal causation, by reflected irritation out of the question, would be, to say the least of it, highly unscientific. But in tracing the nasal relation, the question arises, as to what symptoms about the nasal mucosa we are to look for to give us any positive ground to assume that we are dealing with a reflex neurosis of the nose. I doubt if in the present state of our knowledge, this question can be definitely answered.

In many cases there would be frequent sneezing, a watery discharge from the nose, and occasional and intermittent stoppage of one or both nostrils, possibly some slight and fleeting œdema of the face; in others these might be wholly or in part absent.

But still, it is all important to have a proper nasal examination made, more especially in the absence of any other defined causation. A careful examination of the nose might reveal swelling of the turbinated corpora cavernosa, or the use of the probe would show the sensitive spots by the irritation caused from contact, giving rise to sneezing, asthmatic breathing, neuralgic pain, notably toothache, possibly gastric disturbances, or sometimes one sided perspiration, especially of the extremities.

In hay fever, however, we do not need these guides to a diagnosis, nor can there be any doubt because we are all so familiar with the group of symptoms known by that name, and known heretofore as the disgrace of the Rhinologist as trachoma is of the ophthalmologist. Hence the proof that it is a reflex phenomenon of certain intra-nasal changes, the special irritation of the sensitive spots or structures being set up by various causes, whether pollen or other agents, whether periodically or at irregular times, is a great advance in the right direction. Possibly Dr. Mackenzie's theory of an abnormal excitability (inherited or acquired) of the reflex nerve centres being the essential principle of the reflex action instead of excitability of the terminal fibres of the nerves (vaso motor, or vaso dilator) is more acceptable, at least to my mind, whilst not agreeing with him in the necessity of engorgement or swelling of the turbinated tissues in order to induce reflex phenomena. I think that this idiosyncratic excitability of the reflex nerve centres explains better the different forms this reflex neurosis takes in different individuals from irritation of the same or corresponding sensitive spots in the nasal mucosa. But here as elsewhere, when dealing with the sympathetic and its functions we are wandering in a maze of uncertainty and speculation that belongs rather to experimental physiology. The treatment should be directed to diminishing the tendency to irritation of the sensitive area or spots on the nasal mucosa by both internal and local treatment. Failing in this the sensitive areas, which must be carefully localized with the probe, should be destroyed by caustic agents or by the galvano cautery. Latterly much has been written about the use of the galvano-cautery, and probably as a result of this its use is likely to run into abuse. It is, undoubtedly, a very valuable agent in the treatment of nasal affections, but we should be careful in selecting appropriate cases for its application. Whilst considerable success has attended this line of treatment in the reflex neuroses, still relapses occur, and make us look forward to the further light on the subject that greater experience will give.

ADDRESS IN DENTAL AND ORAL SURGERY

DELIVERED IN GENERAL SESSION AT THE THIRTY-SIXTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION

BY WALTER W. ALLPORT, M.D.,
OF CHICAGO, ILL.

The introduction of cocaine as a local anæsthetic, and the more general use of peroxide of hydrogen (H O^2) in the treatment of dental and ~~oral diseases~~, are the principal advances made in the medical department of this practice during the year for which this report is made.

The two forms of cocaine which have been most generally used in surgery are the hydrochlorate and the oleate. In operations in the mouth involving the mucous membranes, together with the immediately subjacent tissues, these preparations of the drug have proven so efficient that there is little question as to its value as a local anæsthetic in such cases. But its action upon deeper structures, such as involve the roots of teeth, is so uncertain as to render its practical benefits questionable in the operation of extraction. In the surgical treatment of pockets caused by pyorrhea alveolaris, the anæsthetic effect of this agent is often so great as to render this sometimes very painful operation comparatively painless, and its employment in such cases should rarely be dispensed with. In the treatment of hypersensitive dentine as well as in the removal of tooth pulps, its action as an anæsthetic has, under some circumstances, seemed to be all that could be desired. But in far the greater number of cases it has proved of little practical value. More recently however, a new form of cocaine, known as the citrate, has been introduced in Germany by Merck, and is now being manufactured by McKesson and Robbins, of New York. In a series of experiments, conducted by Dr John S Marshall, of Chicago, it has been shown that for operations upon sub mucous tissues or in the extraction of teeth, it seems to possess no special advantages over the preparations previously named. But when applied to dentine or the pulp, its action —although not always positive—seems to be more reliable, especially upon the dentine and gives promise of better results. Under favorable conditions it produces anæsthesia of the parts in from five to ten minutes, and the duration of the effect is of sufficient length to afford time for the preparation of the cavity. This effect has in some cases, been prolonged for more than hour. The pulp has been extirpated without pain after the drug has been applied in from three to twelve minutes.

If the citrate of cocaine be kept in solution for more than three or four days it decomposes and loses its active properties. As introduced by Mr Merck for dental purposes, it is made into pills by incorporating it with gum tragacanth dissolved in glycerine, each pill containing ⅛ grain of the citrate. In this form it keeps well. A pill is applied to the sensitive cavity and covered with a cotton pledget, moistened in tepid water. It should be allowed to remain from five to twelve minutes, when—if at all—the desired result is produced. In twenty per cent of the cases where this remedy has been employed, it has proven unsuccessful but it is hoped that this percentage will be reduced by a better knowledge of the drug and the improved methods of its preparation and use.

With this end in view and at the suggestion of Dr Marshall, McKesson and Robbins are now manufacturing granules containing one sixteenth of a grain of the citrate of cocaine, without glycerine or any other saccharine excipient, so that the obtundent may act more promptly than it can in the presence of sugar.

The peroxide of hydrogen, (H_2O_2), although not a new remedy, has only within the last few years gained much prominence in the treatment of surgical diseases. One of its uses in dental and oral surgery, is in blind or deep seated abcesses, such as arise from roots of diseased teeth. As the tendency of pus is always downwards, when these cases occur in the lower jaw, it is not infrequent that the abcess, if left to itself, and sometimes even after the tooth is extracted, will point through the external tissues at the lower margin of the jaw, and occasionally downwards between the muscles of the neck and open at various points, even as low down as the clavicle. The usual treatment in such cases, is to extract the tooth and evacuate the pus through the alveolus, but it often happens that the formation of pus and the continuance of suppuration is not checked, and the abscess points, or is opened through the external tissue of the face or neck, leaving, when healed, a disfiguring scar.

By injecting peroxide of hydrogen into such abscesses before they point through the external tissues, this serious disfigurement can usually be averted, and the suppurative process is materially shortened. It is also a valuable aid for the evacuation of the purulent contents of the antrum of Highmore, in catarrhal and suppurative inflammations, and especially so where the sinuses are divided into two or more pockets by bony septi. These cases are often protracted by the inability of the surgeon to perfectly evacuate them. But with this preparation it becomes a simple matter, after access has been gained to the cavity by the extraction of a tooth or the perforatio of its external wall in the proper place at the juncture of the cheek with the alveolar border. A free opening must always be made for the escape of the contents, in order to avoid pressure from the rapid evolution of gas. Two or three applications of a drachm each is usually sufficient to completely empty the sac.

It is used with most gratifying results in the treatment of pyorrhea alveolaris, and is an invaluable agent in treating pulpless teeth, as by its action all decomposed matter from the pulp chamber and dentinal tubuli is readily ejected, thereby, removing the most fruitful causes of the discoloring of this class of teeth, of inflammation of the peridental membrane, as well as alveolar abscesses.

The efficacy of peroxide of hydrogen depends upon the ease with which it is decomposed into oxygen and water. Pus is one of the many substances which causes this decomposition. Hydrogen peroxide acts first, chemically, and then mechanically. When the decomposition takes place the oxygen is set free and escapes from a liquid to a gaseous form, this expansion of the gas distends the pus cavity, and as it escapes from the orifice, it carries much of the pus with it, and its application should be repeated until all purulent accumulations are evacuated. The liberated oxygen, being in a nascent or active condition, rapidly oxydizes the products of suppuration and destroys many of the micro organisms of suppuration[1]. Hence it is a disinfectant and anti septic.

Finally, peroxide of hydrogen, after its decomposition, leaves no material in the system which is foreign to the system itself and it is therefore one of the most efficient and harmless disinfectants and antiseptics that can be used, in all forms of purulent inflammation.

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[1] See Gradle on 'Bacteria and the Germ Theory of Disease' pp 39 and 351.

MEDICAL PROGRESS

ANATOMY AND PHYSIOLOGY

(*Concluded from page 684.*)

THE CHOLERA BACILLUS.—In the neutralized meat-infusion with peptone, made solid by agar agar, the bacillus grows fairly rapidly, but it does not produce any liquefaction of the material, nor is the growth distinguishable from that formed by many other kinds of bacteria. Indeed, it is a very curious fact that agar-agar material is of very little use, compared with gelatin, as a medium for distinguishing bacteria from one another, many forms growing almost in precisely the same way in it. On the cut surface of boiled potatoes, the bacillus does not grow at a low temperature at all, but, at the body-temperature, it grows fairly rapidly, and forms a brownish layer, which, according to Dr. Koch, closely resembles that formed by the bacillus of glanders. It grows readily on blood-serum, at the temperature of the body, and liquefies it. When grown in meat jelly, containing 3 per cent. of peptone, a smell is evolved of a somewhat fæcal character, but not very strong. This smell is said by Nicati to resemble the characteristic odor of cholera-evacuations, but with regard to this, I cannot speak from personal knowledge, for I did not pay particular attention to the odor of the cholera evacuations. When grown in meat jelly containing no peptone, or only one per cent., I have not detected any odor at all. Dr. Koch has stated that these bacilli, when dried rapidly, lose their vitality; in three hours, they are completely dead. I have had no difficulty in confirming this observation.

Is this organism peculiar to Asiatic cholera, or not? The extreme importance of this question, in presence of the difficulty in getting decisive evidence one way or another from animals, will be evident to all, and I shall return to this point subsequently. In the meantime, it must be evident that, as it is the almost unanimous statement of various observers that this organism is always present in Asiatic cholera, it follows that, unless it be peculiar to this disease, it should be widely distributed throughout the world, and should, therefore, be readily found. Although my investigations on this matter are much more complete than on the first point, I need not take up much space with its discussion, as I have entirely failed to find this organism except in cases of Asiatic cholera. A few remarks on the materials examined will, therefore, be sufficient.

But, in the first place, I must point out that there are other comma shaped bacilli than those found in cholera, which are, however, easily distinguishable from the latter. Of these, two liquefy gelatin, and must be more specially alluded to, namely, Finkler's and Deneke's or Flugg's. Another has also been discovered by Miller in a carious tooth, which very closely resembles Finkler's and is probably the same, so that I need not describe it specially. For the opportunity of studying these bacteria, I am indebted to Dr. Koch, who sent them to me.

Finkler's comma bacillus was found by him in an epidemic of cholera nostras in Bonn, and was at first thought to be identical with the organism of Asiatic cholera, but it is now been clearly shown to be a different organism. When examined without staining, it is seen to be larger than the cholera-bacillus, and the curvature is not so marked. The spirillar forms are also rarer, and the turns are not so numerous. It grows rapidly in gelatin, the colonies are round, smooth, and it liquefies the gelatin extremely rapidly. In the test-tube cultivation, the gelatin becomes very rapidly fluid, so that, in twenty-four hours, it may reach the margin of the tube at the surface, and also extend down to the bottom of the needle-track. The fluid is also uniformly muddy. On potatoes, it grows rapidly at the temperature of 18° Cent., forming a thick greyish-yellow layer over the surface of the potato. It produces a strong fæcal or urinous odor.

Flugge's or Deneke's comma shaped bacillus was found in a piece of old cheese. It resembles the cholera bacillus more nearly than does Finkler's, but it is easily distinguishable from it. Seen in the unstained condition, it is smaller than the cholera-bacillus, and the spirillar forms are more frequent, but they are not so long as those in cholera, and also the individual bacilli forming the spirilla are attached rather at an angle than in a regular curve. It grows rapidly in the nutrient jelly, and its young colonies are very dark, round, and of regular contour. They are irregularly granular. Liquefaction occurs much more rapidly than in the cholera bacillus, but not so rapidly as in the case of Finkler's. A colony of Flugge's bacillus, twenty-four hours old, is very like a colony of the cholera bacillus three or four days old. In test-tube cultivations, liquefaction occurs much more rapidly with Flugge's than with the cholera-bacillus, and here, again, a cultivation two days old is very like a cultivation of the cholera bacillus a week old, but the fluid is somewhat turbid, and the liquefaction at the lower part of the needle-track is more extensive than with the cholera-bacillus. It does not grow at all on potatoes. It will be evident that, taking all these characters together, it is easy to distinguish these organisms from one another. It is not so easy to describe their differences as to distinguish the variety in practice. When mixed together in the same glass plate cultivation, one can pick out the three kinds with the greatest ease. There are also other comma-shaped bacilli, but they do not qualify gelatin. Indeed, several of them will not grow in the material used for cultivating the cholera-bacillus. Of these, I may mention three.

In Dr. Koch's report on cholera, he mentions that he found in water, in the neighborhood of Calcutta, a comma-shaped bacillus, which, however, differed in important particulars from the bacillus of cholera. It may be best if I simply quote Dr. Koch's statement. "Only once did I find in the water which, at the time of the floods, overflowed the region of the salt-water lake lying eastward from Calcutta, a form of bacteria which at the first glance had a certain likeness to the cholera bacilli, but, by accurate examination, they appeared somewhat larger and thicker and their cultivation did not liquefy the gelatin."

Last summer, I had the opportunity of investigating the dejecta of two cases of severe cholera nostras, one of them fatal In both were comma-shaped bacilli, closely resembling, in microscopic appearance, Koch's cholera bacilli, and, in the second case, there were also large numbers of spirilla as well As I was very anxious at that time to get cultivations of the cholera-bacillus, and as it was also possible that these cases might be the first in an epidemic of Asiatic cholera, I spared no pains in my attempt to cultivate these organisms, but, although I made a large number of cultivations, I was quite unable to cultivate them, the same material and the same methods being employed which were afterwards perfectly successful in the cases of true Asiatic cholera There can, therefore, be no question but that these organisms belonged to a separate species or variety, whatever the proper term may be

In saliva, more especially, however, in the accumulations on the teeth, comma shaped bacilli are frequently present—sometimes, indeed, in considerable numbers, and as here, if anywhere, the cholera bacilli ought to be found, if they be only accidentally present in case of Asiatic cholera, a great deal of attention has been paid to these organisms by various observers Dr Koch, himself, in his earliest reports, states that he has paid particular attention to this matter, and that he has entirely failed to find the cholera bacilli in the saliva, or in the accumulations on the teeth I have, during the course of the past winter, tested my own saliva and that of other persons, on a number of occasions for cholera bacilli, but have entirely failed to find any The experiments were performed in the same way as in the case of the cholera evacuations, by glass plate cultivations in the nutrient jelly, and I have done, on an average, one set of experiments (from six to ten plates) every week since the beginning of December Not only have I failed to obtain cholera bacilli, but I have entirely failed to grow the comma shaped bacilli seen in the saliva In several cases, there were numerous comma shaped bacilli present in the material tested, but I, nevertheless, failed to obtain cultivations of them As regards the material employed for cultivation, I have in most instances used the same nutrient jelly as was being at the same time used successfully for the cultivation of the cholera bacillus This material was as nearly neutral as possible, though generally, no doubt, it was faintly alkaline, in some cases it was faintly acid, and in several instances it was not neutralised at all, and was therefore strongly acid Learning lately that it was supposed that the salivary comma shaped bacilli could be cultivated in absolutely neutral jelly containing five per cent gelatin, I have prepared some material absolutely neutralized by the use of calcium-carbonate, as suggested to me by Professor Warden, but I have entirely failed to obtain cultivations of the comma-shaped bacilli, although considerable numbers were seen on microscopic examination From my own experiments, therefore, I have no doubt that the comma-shaped bacilli seen in the saliva are not the same organisms as the cholera bacilli described by Koch The same failure to cultivate the comma-shaped bacilli of the saliva has attended attempts made by a large number of observers, indeed, with the single exception of Dr Klein, no one has succeeded in growing them

Professor Miller, a dental surgeon in Berlin, has made cultivations from a very large number of patients, and has entirely failed to obtain the cholera bacillus Indeed, in only one case, from a carious tooth, did he succeed in obtaining a cultivation of comma-shaped bacilli which liquefied gelatin, but, on further investigation, it turns out that this organism is very closely allied to, and in all probability identical with Finkler's bacillus It seems to me that we have now sufficient evidence to enable us to say definitely that the cholera bacilli are not present in saliva, more than sufficient evidence, if we bear in mind the fact that they are always present in Asiatic cholera, and that, therefore, if they come from the saliva, and are not peculiar to cholera, they ought to be always, or at least very frequently, found in it

I have also, in several instances, tested the evacuations from diarrhœa by cultivation for the cholera-bacillus, with entirely negative results I have referred before to the case of diarrhœa in Paris, in which I also obtained a negative result Then I have tested putrefying and other liquids containing various kinds of bacteria, without obtaining any cholera bacilli And, further, I may bring forward my previous experience with these methods of research, extending now over several years, in which I have investigated water air, soil, in fact all sorts of materials, in the first instance for practice, and later, with the object of making myself acquainted with the various forms of bacteria, or for other purposes, the result of this experience being that I never met with these organisms till I investigated cases of Asiatic cholera The answer which I then give is, that I have never met with the cholera bacillus except in Asiatic cholera, and that the other comma shaped bacilli as yet described, differ markedly from it in many essential points This statement is founded on a thorough examination of a large quantity of material

I now pass on to the third point, namely the result of injection of these organisms, or their products, into animals Numerous attempts have at various times been made to infect the lower animals with cholera dejecta, but the results have been quite indefinite, in fact, the natural conclusion from them is that the lower animals are not susceptible to the virus of cholera Cholera dejecta have been injected into the stomach, small intestines, and veins of various animals without producing any effect Mice seem to have been the only animals in which anything like positive results were obtained but it is apparently now very doubtful whether they were really affected with the virus of cholera, or only with some form of septicæmia Seeing then that the virus of cholera, supposing it to exist in the dejecta, is without effect on the lower animals when mixed with the dejecta, it could not be expected that if it were isolated from the other materials, it would be more potent Hence a failure to produce disease with any given bacterium which, for other reasons, might be regarded as causally connected with the disease, does not in any way prove that the said bacterium is not the virus sought for. As regards Koch's cholera-bacillus, the earlier results of injection into the small intestine, or into the veins, or of feeding the animals with pure cultivations, were also entirely negative. Thus the question remained *in statu quo*, and all that could be said was, that this failure did not demonstrate that these bacilli were not the cause of cholera, but if anything rather strengthened the contrary opinion, as showing that in this particular the relation of this organism to the lower animals was the same as that of the virus of cholera. The matter has not, however, been allowed to remain in this condition; numerous efforts have been made to overcome, in some way or other, the difficulty of infecting animals with cholera, and to some extent these efforts have been successful.

During an investigation on cholera, Nicati and Rietsch, being struck by the fact that the biliary secretion seemed to be diminished or arrested during an attack of cholera, thought that this might have something to do with the rapid growth of the cholera-bacilli in the intestine. They therefore tied the bile-duct in dogs, and then injected pure cultivations of cholera-bacilli into the intestine. They report that their experiments were successful in several instances, the animals suffering from diarrhœa, and dying in two or three days. The intestine after death was found to be reddened, and to contain fluid watery dejecta, resembling the rice water material in man. They were also able to produce similar effects in guinea-pigs. Shortly afterwards, Dr. Koch reported that he had been able, in some instances, to obtain like results in guinea-pigs. Apparently, however, the results were by no means constant.

When I returned from Paris, I wrote to Dr. Koch to enquire what his method of operating was, and he kindly gave me full details. The essential point was to inject the cultivation into the duodenum between the pyloric end of the stomach and the entrance of the bile duct, the whole operation being done with thorough antiseptic precautions. These precautions consist in shaving the skin of the abdomen, washing it thoroughly with watery solution of corrosive sublimate (1 in 1000), and with carbolic acid; the hands, sponges, knives, and other instruments are also thoroughly disinfected, and the wound is dressed with an antiseptic dressing. I have always, after stitching up the wound closely with silver wire and catgut, applied powdered salicylic acid in large quantity, so as to form an antiseptic crust.

The operation is by no means a difficult one, and guinea pigs—which are the only animals I have used for these experiments—take chloroform very well. A small incision about half an inch to the right of the middle line, extending from the lower border of the ribs downwards, exposes the lower edge of the liver and the stomach close to the pyloric end. By pulling gently on the stomach, the pyloric end and the first part of the duodenum come into view. The syringe employed was that introduced by Dr. Koch for experiments with bacteria, remarkable chiefly for the fact that the metal portions screw on to the glass and that the washers and a portion of the piston are renewed every time the syringe is used. The syringe is always sterilised by keeping it in an iron box at 300° Fahr. for three hours after the fresh washers and piston have been applied. In injecting into the intestine, the needle is pushed through the walls as obliquely as possible, so as to prevent regurgitation into the peritoneal cavity. As a rule, cultivations in nutrient jelly were employed. A little distilled water was boiled, and allowed to cool under protection from dust. A small quantity of the growth was then removed from the tube by means of the sterilised platinum wire, and diffused in the water.

MEDICINE.

EUPHORBIA PILULIFERA IN ASTHMA.—MARCET commends the active principle of this plant in the treatment of asthma. Its action is purely antispasmodic, so that it is useless in bronchitis. The dose is one grain, best given in a watery solution. The author has never found it necessary to give more than a grain and two-thirds to produce the therapeutical effect. Dujardin-Beaumetz employs the tincture, the dose of which varies from ten to twenty drops. A syrup also is recommended, each teaspoonful of which contains a grain of the drug.—*N. Y. Med. Journ.*, May 23, 1885.

CAPSICUM TREATMENT OF ANAL FISSURES.—In a recent thesis DR. PANZAT has recorded a number of cases of fissure of the anus treated by the internal administration of capsicum. It was given in doses of gr. iij morning and night. In most of the cases a cure resulted within a comparatively short time. The cases recorded were too few in number to serve as a basis for any definite conclusions; but the remedy being so simple and the effects in certain cases so beneficial, the author concludes that a trial of it should always be made, and if at the end of a few days no improvement occurs, recourse may be had to forcible dilatation.—*Medical Record*, June 20, 1885.

SURGERY.

LACTIC ACID AS A MEANS OF DESTROYING PATHOGENIC TISSUES.—As the result of researches made on this subject, MOSETIG-MOORHOF (*Centralblatt für Chirurgie*) concludes that this acid is endowed with the property of destroying pathogenic tissues without impairing the healthy tissues. These observations have been verified in fungous growths, in lupus vulgaris, in superficial epithelioma, etc. The morbid tissue was dissolved into a pulp by the acid, while the surrounding tissue and the islets of healthy tissue within the neoplastic zone remained intact. The mode of application was as follows. By means of plaster or beeswax the surrounding healthy tissue was protected; a piece of linen or of absorbent cotton-wool the size of the affected area was soaked in a concentrated solution of lactic acid, and kept in its place by a layer of cotton-wool and a bandage. He has also employed a paste made of lactic and salicylic acids. The dressing was left on for twelve hours, when it was removed and the surface carefully cleansed. For the next twenty-four or forty eight hours it was dressed with water, after which the acid was again applied. This process required to be repeated six or seven times, leaving an interval of a day or two before the neoplasm was destroyed. No pain was occasioned by it, and children bore it as well as adults.—*Edinburgh Medical Journal*, May, 1885.

OBSTETRICS AND GYNÆCOLOGY.

UTERINE HÆMATOCELE.—Dr. G. BERNUTZ, physician to the Charité Hospital, of Paris, has concluded a lengthy paper on this subject in the *Archives de Tocologie*. His last article appears in the number for May, 1885, in which he arrives at the following conclusions:

1. Uterine, or peri uterine hæmatocele, cannot be considered from a pathological point of view as a special disease; it constitutes simply an anatomico pathological entity, which may give rise to a great number of diseases or diverse morbid conditions. It is consequently indispensable that the subject be exactly defined, to avoid its being too complex or having its pathological history confused.

2. The denomination of uterine, or peri uterine hæmatocele, should therefore be exclusively applied to sanguineous pelvic tumors contiguous to the uterus and not really uterine, which have as their seat the peritoneal cavity itself; this excludes, 1st, what is called extra or sub peritoneal hæmatocele, a thrombus of the cellular tissue of the broad ligaments and of the vagina as observed in the puerperal state; 2d, the pseudo hæmatocele of pelvic hæmaturia, in which the hæmatic extravasation is not contained in the peritoneum, but lies either in an extra-uterine abdominal fœtal cyst, or is intra-neo membranous.

3. The name uterinehæmatocele should not be applied except to sanguineous intra peritoneal collections which form tumors, and tumors that are perceptible to abdominal palpation and to the touch, that is to say, which are encysted. It cannot be applied legitimately to collections of blood that are free, floating in the serous membrane, changing position under pressure of the hand, and not giving the characteristic resistance of all tumors. This latter class should be defined as internal abdominal hæmorrhage.

4. Therefore a uterine hæmatocele requires two factors for its existence: An intra peritoneal pelvic hæmorrhage, and the septum of the pelvic excavation; one may be the cause of the other, or they may occur at different periods. The hæmorrhage which engenders the hæmatoma may arise from this pelvic septum, or it may follow immediately upon a sub acute pelvic peritonitis.

5. The mode which has for years been considered as the only one, is where the hæmatocele has as its initial factor an intra peritoneal pelvic hæmorrhage, which creates secondarily an encysted peritonitis. In these cases, where the pelvic cavity and the abdominal cavity proper are in free communication, and where, consequently, the vascular tension, not being confined by the walls of the cavity, is prone to distension, the sanguineous extravasation, by its abundance, causes cataclysmic symptoms, such as characterize internal abdominal hæmorrhage, and terminates fatally, either by the excess of blood discharged, by the development of a generalized peritonitis, or by the manifestation of serious functional disturbances caused by compression.

6. In a second mode of formation, there preexists, on the contrary, a septum of the pelvic basin, which constitutes after a time a closed cavity, whence it results that the sanguineous extravasation can accumulate but in moderate proportions, causing a comparatively benign symptomatology. The hæmorrhage which gives rise to the hæmatoma in this form may be from a lesion of the ovary (ovarian hæmatocele) a congenital or acquired atresia, complete or incomplete (hæmatocele by menstrual retention) an exaggeration of the secretion of blood from the internal genital organs (metrorrhagic hæmatocele), or an active neo membranous congestion (hæmatocele symptomatic of a pachy-pelvic hæmorrhagic congestion) occurring suddenly, most frequently at a menstrual epoch or after a menstrual disturbance, with women in apparent good health, or affected with a hæmorrhagic diathesis, and the hæmatocele is established. In this variety there exists a special anatomical disposition, which is characteristic and consists in a repletion, associated with the pelvic intraperitoneal hæmatocele, of one or both of the oviducts with blood.

7. In the third mode of formation in which most frequently there pre exists a septum of the pelvic basin that is of some age, and may be incomplete, the hæmorrhage which produces the hæmatocele occurs in the course or decline of a sub acute pelvic peritonitis, which constitutes a phase antecedent to the hæmorrhage, by favoring the multiplication of new vessels in the serous membrane. This occurs, generally, at a catamenial period, as a recrudescence of the inflammation of the pelvic serous membrane; it becomes at once of considerable volume, and immediately perceptible, and gives ultimately the progress and termination of an ordinary hæmatocele. This is the most common form of all.

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In the opening chapter it is asserted that the most important question in the treatment of the disease is that of climatic stations in winter and summer. This conclusion has been arrived at after the most careful investigation of so called health resorts, for it is probable that on this subject Jaccoud is the highest living authority, he having visited all such places in Europe, many of those in Asia, the principal stations in Algiers and Morocco, and the Canary and Madeira Islands. The estimation in which he holds the climatic treatment is shown by the fact that more than one hundred pages of his book are devoted to this subject. His studies have led him to fix upon new principles the general indications for warm climates, as well as the particular indications of the different climatic groups. In his remarks on this subject he regrets, what was pointed out in our columns a short time ago, that physicians are so much guided by routine in selecting climates for the subjects of phthisis. It is often the case that a case of confirmed phthisis, another of the early stage, and a third which has not yet developed the disease, but in which it is feared, are sent to the same places. It should be remembered that no climate has any curative effect upon tubercle, that some climates seem to confer a kind of immunity from the disease, and that of the different elements constituting climate, that which is most directly connected with this immunity is the altitude of the place.

While it should not be inferred from the foregoing facts that climates at a high altitude have a curative effect upon tuberculosis, it is quite certain that these climates in some way prevent the development of the disease in their inhabitants, and that, unless there are some special counter-indications, they offer the most favorable atmospheric conditions to those already affected. It is not difficult to see that climates at high altitudes, and having but slight atmospheric pressure, should be especially beneficial in many cases. At an altitude of from 3,900 to 6,500 feet, with slight atmospheric pressure, "the circulation is so modified that the blood collects in the superficial parts, the capillaries of the skin being turgescent." This flow of blood to the periphery tends to keep the viscera in a state of comparative anæmia, which can scarcely be otherwise than beneficial. "The cerebro-spinal functions are carried on more actively and with greater facility, the mind is unoccupied and clear, the power of locomotion is increased, the respiration is much facilitated, though the mode of performing it is greatly changed." There is, therefore, with a feeling of activity, an increased capacity for physical exertion with an increased desire for exercise, the final result of which must be an improvement in general nutrition, and more or less restoration of the organic powers.

The relative anæmia of the lungs, as of the other viscera, produced by altitude, increases the good influence of respiratory activity by facilitating the pulmonary circulation, thus removing any existing congestion, and preventing hyperæmia. Hence, it is easily seen that the idea that attributes a tendency to hæmoptysis to residence at a high altitude, is grounded on error, as shown by the facts that patients residing there are almost universally free from hæmoptysis, and by the cessation of hæmoptysis on the arrival of a patient at such a place. It is an interesting fact, that effects are produced by the rarefied air of high altitudes which are very similar to those produced by compressed air; in the first the increased muscular exertion causes complete respiratory absorption, hours, when it was removed and the surface carefully cleansed. For the next twenty-four or forty eight hours it was dressed with water, after which the acid was again applied. This process required to be repeated six or seven times, leaving an interval of a day or two before the neoplasm was destroyed. No pain was occasioned by it, and children bore it as well as adults.—*Edinburgh Medical Journal*, May, 1885.

OBSTETRICS AND GYNÆCOLOGY

Uterine Hæmatocele.—Dr. G. Bernutz, physician to the Charité Hospital, of Paris, has concluded a lengthy paper on this subject in the *Archives de Tocologie*. His last article appears in the number for May, 1885, in which he arrives at the following conclusions:

1. Uterine, or peri uterine hæmatocele, cannot be considered from a pathological point of view as a special disease, it constitutes simply an anatomico pathological entity, which may give rise to a great number of diseases or diverse morbid conditions. It is consequently indispensable that the subject be exactly defined, to avoid its being too complex or having its pathological history confused.

2. The denomination of uterine, or peri-uterine, hæmatocele, should therefore be exclusively applied to sanguineous pelvic tumors contiguous to the uterus, and not really uterine, which have as their seat the peritoneal cavity itself; this excludes, 1st, what is called extra or sub peritoneal hæmatocele, a thrombus of the cellular tissue of the broad ligaments and of the vagina as observed in the puerperal state; 2d, the pseudo hæmatocele of pelvic hæmaturia, in which the hæmatic extravasation is not contained in the peritoneum, but lies either in an extra-uterine abdominal fœtal cyst, or is intra-neo membranous.

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In the opening chapter it is asserted that the most important question in the treatment of the disease is that of climatic stations in winter and summer. This conclusion has been arrived at after the most careful investigation of so-called health resorts, for it is probable that on this subject Jaccoud is the highest living authority, he having visited all such places in Europe, many of those in Asia, the principal stations in Algiers and Morocco, and the Canary and Madeira Islands. The estimation in which he holds the climatic treatment is shown by the fact that more than one hundred pages of his book are devoted to this subject. His studies have led him to fix upon new principles the general indications for warm climates, as well as the particular indications of the different climatic groups. In his remarks on this subject he regrets what was pointed out in our columns a short time ago, that physicians are so much guided by routine in selecting climates for the subjects of phthisis. It is often the case that a case of confirmed phthisis, another of the early stage, and a third which has not yet developed the disease, but in which it is feared, are sent to the same places. It should be remembered that no climate has any curative effect upon tubercle, that some climates seem to confer a kind of immunity from the disease, and that of the different elements constituting climate, that which is most directly connected with this immunity is the altitude of the place.

While it should not be inferred from the foregoing facts that climates at a high altitude have a curative effect upon tuberculosis, it is quite certain that these climates in some way prevent the development of the disease in their inhabitants, and that, unless there are some special counter-indications, they offer the most favorable atmospheric conditions to those already affected. It is not difficult to see that climates at high altitudes, and having but slight atmospheric pressure, should be especially beneficial in many cases. At an altitude of from 3,900 to 6,500 feet, with slight atmospheric pressure, "the circulation is so modified that the blood collects in the superficial parts, the capillaries of the skin being turgescent." This flow of blood to the periphery tends to keep the viscera in a state of comparative anæmia, which can scarcely be otherwise than beneficial. "The cerebro-spinal functions are carried on more actively and with greater facility, the mind is unoccupied and clear, the power of locomotion is increased, the respiration is much facilitated, though the mode of performing it is greatly changed." There is, therefore, with a feeling of activity, an increased capacity for physical exertion with an increased desire for exercise, the final result of which must be an improvement in general nutrition, and more or less restoration of the organic powers.

The relative anæmia of the lungs, as of the other viscera, produced by altitude, increases the good influence of respiratory activity by facilitating the pulmonary circulation, thus removing any existing congestion, and preventing hyperæmia. Hence, it is easily seen that the idea that attributes a tendency to hæmoptysis to residence at a high altitude, is grounded on error, as shown by the facts that patients residing there are almost universally free from hæmoptysis, and by the cessation of hæmoptysis on the arrival of a patient at such a place. It is an interesting fact, that effects are produced by the rarefied air of high altitudes which are very similar to those produced by compressed air, in the first the increased muscular exertion causes complete respiratory absorption, while in the second the increased "inspiratory absorption" results from the passive yielding of the lungs, and only the lungs, to the increased pressure. "Mountainous climates at the height of from 4900 to 6260 feet, have in reality a double effect, firstly, a general one, by which the constitution is restored to a healthy condition, secondly a local one, by which the activity of respiration is increased to a maximum degree, while the lung is protected from the effects of congestion or hyperæmia. Climates which, on account of their more northern latitude, present analogous conditions of temperature at a lower altitude produce the same tonic effect under these conditions. They have not, however, the same mechanical influence upon the lungs, this being entirely due to the barometric pressure." And it is in connection with this distinction that Jaccoud proposes a new and special division of climates, as considered with regard to the treatment of phthisis, into, climates which are highly situated with but slight atmospheric pressure, and climates of the plain with moderate, or somewhat less than moderate, atmospheric pressure. Types of the first group are altitudes of from 4900 to 6250 feet, though he admits that mountain residences should be placed in this group at so low an elevation as 3300 feet in the latitude of France, or even so low as 1650 feet farther north. The second group includes places with an altitude of less than 1300 feet.

Climates embraced under the first division, may be said to be "unreservedly adapted to the prophylactic and initial period of ordinary phthisis . . . the climates with moderate pressure fulfill none of the etiological indications drawn from the nature of the disease. Climates with moderate pressure, are wanting in the mechanical action of a rarefied atmosphere, there is insufficient tonic and fortifying effect, nor do they possess that special purifying effect peculiar to high altitudes, they therefore fulfill only secondary indications, secondary either in themselves, or on account of the time at which they appear. While such climates have no curative effect on the disease, and are not preventive of fresh tubercle, they may, on account of having a temperate or warm fresh temperature in winter, act favorably upon any preexisting bronchitis or pulmonary catarrh. Confinement within doors is unnecessary, and much of the time may be spent in the open air without danger of provoking bronchitis or pneumonia, which would not be the case in a more rigorous climate, or one having greater variability of temperature. It is thus seen that climates of the second class, while of undoubted value in the treatment of phthisis, are only of secondary importance. A change, therefore from a highly situated residence to a low station, should not be made until positively indicated by the condition of the patient.

What, then, are the indications and contra indications for a high altitude in the treatment of phthisis? It need scarcely be said that these cannot be defined by hard and fast lines, the indications being of a purely individual character. Certain general rules, however, may be deduced. "Catarrh of the apices occurring at the onset of the disease, and which accompanies or often precedes the first formation of the tuberculosis," is not a counter-indication for residence at a high altitude, but is a special indication for such residence so long as other circumstances of the patient give the same indications. The same is true of the later catarrh denoting tubercular softening, or, according to Laennec's division, the passage from the first to the second period of the disease. In these cases there is one special contra indication to a high altitude, when the patient does not live at a high altitude, "and an opinion has to be formed at the beginning or during the course of the winter," as to the advisability of going to such a place. "It is to be feared that one of the first effects of this unseasonable change would be the occurrence of bronchitis and the increase of preexisting catarrh," and the patient should not be sent to such a place. When this question arises in summer, however, the case is quite different, and the physician should "merely impose the necessity of a very gradual transition from the valley to an elevated place." The high climate will be of special benefit, but must be attained slowly, and when the winter comes on the patient will have become so "inured to the atmosphere," that the beneficial effects of the climate will be obtained without the previous liability to pulmonary complications. It should be remembered, however, that in this consideration of 'high climates," the so called "winter stations" are not referred to.

In the prophylactic climatic treatment, the only contra indications are certain pathological conditions, such as general emphysema, cardiac or vascular disease, etc., which have no connection with the malady in question. In the ordinary form of tuberculosis, the question of high climate is to be decided chiefly "by the mode in which reaction occurs. Whatever the stage of the affection, the course of the symptoms, and the lesions may be, high climates must on no account be taken into consideration should the patient be of an excitable nature. Another counter-indication, quite as absolute and easily understood, is what may be called the wasting period of the disease" The consumptive stage should not be confounded, however, with that of fever "Of whatever type it may be, fever is an element in the consumptive phase of the disease, of which it is plainly characteristic," and is a contra-indication to high climate, unless it subsides under the influence of antipyretics, in which case it may be very beneficial, provided it be resorted to in summer If antipyretics have no effect upon it, high climates are positively contra-indicated "Ulceration of the larynx in tuberculosis should unreservedly exclude the use of climates with slight atmospheric pressure" (high climates) The same is true of intestinal ulceration, while the diarrhœa which is simply due to intestinal catarrh or gastro intestinal dyspepsia, is markedly benefited by high climates

Another contra indication to high climates is the involvement of a large portion of the lung, or considerable bilateral lesions In such cases hæmatosis would not be sufficient in the rarefied atmosphere, and persistent dyspnœa would result "If the other circumstances and particulars of the case positively indicate a high climate, the lowest altitude in the group should be alone inhabited for many months If the trial succeeds, the lesions will perhaps become less extensive during this time, so that eventually the patient may be able to reside in climates of higher altitude" In case of the existence of caverns, everything depends upon their number and size, or "upon the extent to which the surface is diminished in which hæmatosis takes place" Cavities of small size, stationary, containing unirritating liquid, and unassociated with inflammatory complication in the adjacent parts, are benefited by the rarefied atmosphere, and may be brought to occlusion and cicatrization High climates are also contra indicated by the so called pneumonic foci (or the lesions which remain when the original disease has disappeared), when they are accompanied by acute symptoms recurring at short intervals As regards hæmoptysis, it may be stated as a general rule that that occurring in the first or second stage of phthisis will disappear under the influence of high climate, but this symptom in itself furnishes no indication for climatic treatment Finally, it should be said that in the case of patients who habitually reside at high altitudes, and have "become consumptive from living in the plain," these contra indications are not to be regarded "In these circumstances, a return to a high climate is absolutely necessary, and should outweigh all other considerations"

TRANSPLANTATION OF AN EYE FROM THE RABBIT TO MAN

At the meeting of the Academie de Médecine, of Paris, on May 28, M CHIBRET reported that on May 4, 1885, he had successfully transplanted an eye from a rabbit to a young girl who had lost her left eye The report contained in the *Bulletin de l'Academie de Medecine* does not say whether "successfully transplanted" means that the girl can see with the rabbit's eye or not, though one would infer that she can It seems scarcely necessary to say, however, that such a result could not be hoped for, and that the operation must have been performed for cosmetic purposes only Even in this case, the result should have stated whether or not the transplanted eye became controllable by the patient, and whether, if controllable, the movements are in accord with those of the other eye If not, a glass eye would serve a better purpose The report is characterized by that lack of detailed information which is too common in the published proceedings of the Paris Academy of Medicine

It would be still further interesting to know if the transplanted eye will grow in consonance with the other We hope that the subsequent history of this very interesting case will be more fully reported

INTERNATIONAL MEDICAL CONGRESS COMMITTEE

As this number of the JOURNAL goes to press, the General Committee on the Organization of the Ninth International Medical Congress, as reorganized by the American Medical Association, are in session in this city The question about two committees has been settled, and the original committee of eight and the new members appointed for its enlargement are acting together as one committee, and we trust with a fair prospect of satisfactory results

CLOSE OF THE VOLUME

The present number closes the fourth volume and the second year of the publication of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION It contains the title page and full *index* for the volume

We take this occasion, as at the close of previous volumes, to request all our readers to examine their files at once, and if there are any numbers of the present volume missing, send us a postal card stating plainly the *number* and *volume* they need, and we will cheerfully supply it, as it is much easier to do it now, before the surplus numbers are tied up and stored, than it will be at any later period

SOCIETY PROCEEDINGS

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, June 4, 1885

(*Concluded from page 694*)

DR E P BERNARDY reported a case of

GESTATION IN A SARCOMATOUS UTERUS SIMULATING EXTRA-UTERINE PREGNANCY

Mrs M , delicate, age about 30, married six months, was first seen on October 3, 1884, She was said to be suffering from a cold I found the patient up Temp 105°, pulse 130, with a high fever and a severe cough Examination of the lungs revealed double pneumonia At the same time noticing the abdomen prominent, I inquired, and was informed that pregnancy was five months advanced The abdomen was rather large for that period On Sunday, Oct 5, she complained of a sharp pain in the right inguinal region the pain was excruciating and demanded the administration of large doses of morphia before any relief was obtained I found the right inguinal region filled by an immense growth reaching almost to the lower border of the liver The uterus, or what appeared to be the uterus, was enlarged and pushed well toward the left side On vaginal examination, found the right side of the pelvis filled by a growth I first thought I detected fluctuation, but closer examination showed it to be hard to the touch The uterus was jammed well toward the left and was immovable, the neck somewhat absorbed, the os tilted up behind the pubes To reach it the finger had to be passed well upward, it was closed and soft The patient had never had any uterine trouble menses always came without pain they never appeared after her marriage, which occurred one week after a period Her health remained good for three months after marriage when, while out walking she was suddenly seized with a sharp lacerating pain in the right side of the abdomen The pain was so great that she almost fainted, but being a woman of strong will she finally, after suffering terrible agony, reached home and went to bed No physician was called in Next day there were slight traces of blood on her night dress Under absolute rest the pain subsided, and at the end of a week she was about her household duties The pain in the side returned if she excited herself Sexual intercourse was painful and was followed by traces of blood the next day Believing that the symptoms pointed to either extra uterine pregnancy or a tumor complicating pregnancy, I asked Dr Goodell to meet me By the time the consultation was held, October 8, a severe attack of peritonitis had commenced This complicated matters, as a close examination was impossible On account of the distended and painful condition of the abdomen it was impossible to trace any outline of the growth or uterus It was decided that the symptoms and history pointed to extra-uterine pregnancy, but that, undoubtedly, the uterus contained something, whether a tumor or child, in the present condition of the patient, it was impossible to decide the leaning was toward a pregnant uterus By Oct 16, the peritonitis was under control, the lungs no better Oct 19 I was sent for, the messenger stating that there was a renewal of the peritonitis I found the patient in active labor, the fœtus descending rapidly In half an hour labor was completed I readily detected the large growth filling the upper portion of the right side of the pelvis, and the uterus was surrounded by a large growth The cervix was hard From this time the lungs improved, but she remained extremely weak and there was a constant dribbling of blood from the vagina November 3, the growth was still present and the cervix hard, and I began to think of malignant disease in connection with the tumor I had applied, night and morning, to the abdomen, unguent hydrarg , belladonna and iodine, equal parts this remedy had the effect of causing the absorption of the large growth, but the mass surrounding the uterus remained the same November 27 vomiting occurred and was arrested with difficulty, a bloody discharge from the vagina and a constant sore feeling over the region of the uterus, which was still toward the left side The patient's condition was not good, she was extremely weak, the slightest exertion would exhaust her and bring on bleeding from the uterus December 26 I found her suffering from pleurisy, the left pleural cavity full of fluid January 1, abdominal dropsy had set in A consultation with Dr Goodell was held A positive diagnosis of malignant disease was made *Prognosis* Death at any moment She died suddenly the same evening while talking to her husband *Post mortem* examination by Dr L A Roussel, twenty four hours after death Patient greatly emaciated *Thorax* A large amount of effusion completely filling up the left pleural cavity, while the cavity of the right side was partially filled, both lungs were compressed upwards No adhesions On section the lungs appeared mottled, and were hepatized in general appearance, but were otherwise healthy *Heart* On opening the pericardium, found a moderate amount of serous fluid vegetations on mitral valve, weight, 11 ozs *Abdomen* Entire cavity was greatly distended with a dark fluid full of broken down lymph The intestines were forced upwards, there were slight evidences of beginning peritonitis A portion of the ileum on the right side presented a black, unhealthy appearance, bordering on gangrene The uterus was increased in size The outer surface presented an irregular mottled appearance, large veins covered its surface, at the fundus there appeared a spot about one inch in diameter of a bluish tinge, on pressure by the finger the surface readily broke, underneath was a cavity about the size of a large hickory-nut, it did not communicate with the interior of the uterus On opening the uterus, its cavity was found to be almost obliterated, the tumor seemed to have entirely absorbed the true uterine tissue, with exception of the neck In the body of the tumor were observed small masses or growths, varying in size up to that of an egg The ovaries were small, and seemed to have participated in the general disease Microscopic examination proved the tumor to be of the adeno-sarcoma variety

At first I was convinced that I had a case of extra uterine pregnancy, but the peculiar hardness of the tumor made me doubtful Here was a patient who had never had any uterine ailment, marries, becomes pregnant, at the end of the third month, without any premonition, while quietly walking, is seized with pain of an excruciating nature in the right side, goes to bed and remains quiet, the next day blood flows from the vagina She remains comparatively well for two and a half months more, when she is again suddenly seized with pain in the same side, followed by peritonitis A tumor is found in the affected side, the uterus is enlarged, but not sufficiently so for a five and a half months pregnancy, the os giving no signs of that softening which should accompany pregnancy Could we have a group of symptoms more allied to those of extra uterine pregnancy?

Dr J M Keating made some remarks on

INFANT FEEDING

He said At my request, Dr Charles Potts has instituted a series of experiments which have a decided practical value, and we hope to present them to this Society at an early date, but I desire to place on record a statement of the results so far reached, which appear to be interesting and important The question often arises Is it of advantage or not for an infant to be partly nursed and partly bottle fed? What action has milk upon starch, if any? To answer this the following tests were made 1 Sample of milk composed of the milk of several women A quantitative estimation of the sugar in it by Fehling's method showed 6 84 per cent, 10 c c of this milk was then taken and ½ gramme of powdered starch added, allowed to stand at a temperature of 99° for 30 minutes, after which 5 c c diluted with 45 c c of distilled water was tested, and showed 8 62 per cent of sugar The other 5 c c, after standing 60 minutes, gave 9 09 per cent 2 Another sample found to contain 7 14 per cent of sugar had a ½ gramme of powdered starch as in No 1 In 30 minutes it gave 9 803 per cent of sugar in 5 c c The other 5 c c, after remaining 60 minutes, gave 8 62 per cent Possibly part of the sugar deposited and was drawn off with the first 5 c c 3 Another sample showed 6 32 per cent of sugar, and after adding the starch as before, gave in the first 5 c c 8 19 per cent, the next 5 c c 7 93 per cent These investigations showing that the women's milk gave an increase of sugar after digesting with starch

Exp 4 A sample of cow's milk was tested, and found to contain 3 87 per cent of sugar, to this was added a ½ gramme of starch to 10 c c At the end of 30 minutes 5 c c diluted with 45 c c of distilled water showed no increase of sugar 5 A sample of cow's milk gave 4 per cent of sugar, and was treated as before, but at the end of 30 minutes, and then 60 minutes, it gave the same result 6 Another sample of cow's milk gave 3 703 per cent of sugar, was treated as before with same amount of starch In 30 minutes 5 c c gave same result, in 60 minutes 5 c c gave same result These investigations showing that cow's milk gave no increase of sugar after adding starch Does the acidity of cow's milk prevent the sugar change? Does the sugar change continue in an acid medium? 7 Took another sample of human milk—from one woman It yielded 6 25 per cent of sugar Added starch as before In 30 minutes 5 c c gave 7 6 per cent Took 10 c c of this milk (6 25 per cent sugar), and added a few drops of C P dilute hydrochloric acid, enough to faintly acidulate it, and then added ½ gramme of starch and let it stand as before In 30 minutes 5 c c gave 6 41 per cent, and in 60 minutes 5 c c gave 7 35 per cent of sugar 8 Another sample of woman's milk without starch gave 6 17 per cent, with starch 7 24 per cent, 10 c c of the same, acidulated with hydrochloric acid, C P, diluted, gave in 30 minutes 7 55 per cent In these tests 10 c c of Fehling's solution was used with 40 c c of distilled water

If future investigations prove the correctness of these statements, we may safely assert that the nursing woman may supplement her breast milk with some well prepared, digestible form of food containing a small quantity of starch advantageously, and also that the amylolytic ferment will remain active in the slightly acid stomach of the infant

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CHICAGO MEDICAL SOCIETY

Stated Meeting June 15, 1885

The President, C T Parkes, M D, in the chair

Dr R G Bogue *reported*

A SUCCESSFUL CASE OF NEPHRECTOMY

The patient was a woman, aged 36, single, who had suffered from several attacks of acute rheumatism with cardiac complications About six years ago, while doing laundry work she severely strained her back, and this was followed by frequent and painful urination, the urine containing pus, blood and mucus The pain in the back increased during menstruation These symptoms continued until 1882, when a swelling, accompanied by pain and soreness, appeared in the right lumbar region This swelling was finally opened and gave exit to a large quantity of pus, and remaining open continued to discharge pus until the time of the operation, pus, blood and mucus at the same time appearing in the urine, which was voided with difficulty At one time there was so much clotted blood in the bladder it was only dislodged by breaking up the clot with a catheter and washing out the bladder Later there was nearly a closure of the opening into the lumbar abscess, and a fluctuating tumor appeared near the old one, which was opened and gave exit to a quantity of fœtid pus From May 13 to August 27, 1884, there was a free discharge of pus through the lumbar openings and the bladder At no time was there a urinous odor to the discharge from the loin Whenever the discharge from the loin was greater pus appeared in less quantity in the urine, and vice versa

Believing that there was an abscess of the right kidney, on August 27, 1884, Dr Bogue made an exploratory operation by making an opening into the loin along the course of and just below the twelfth rib, including in its track the sinus He came upon a dark fluctuating mass, which upon puncture discharged a quantity of pus, and upon further examination was found to be the capsule of the kidney, divided into compartments, and distended with pus The sac was adherent to the surrounding tissues, and upon separation bled freely The adhesions were quickly broken up and a stout ligature placed around the attachment or peduncle, which was the ureter and renal blood vessels This was done by the aid of a large bent probe armed with silk This ligature completely arrested the hæmorrhage Near this ligature the peduncle was transfixed by a double thread of strong silk and tied in two parts, the mass cut away, with ligatures left long and with drainage tube sewed to drain the cavity, which was cleansed with a carbolated solution, and the wound dressed with oiled silk, gauze and oakum The patient convalesced rapidly with the exception of an attack of rheumatism, and one rather free discharge of blood from the bladder, which followed traction on the ligatures The ligatures did not separate until Dec 7 But little pus came with the urine after the operation There is yet a small fistulous opening in the track of the wound The patient is now comparatively well The mass removed was a distended kidney capsule, with calices so distended that there was obliteration of the kidney tissue except at one point, where there was enough to identify the structure

Dr C T Parkes remarked that an interesting point in the report is where it is described how hæmorrhage was arrested, as the greatest danger in this operation is from hæmorrhage Czerney had a case in which the hæmorrhage was so severe that he ligated the aorta Operations on the kidney are becoming quite frequent In an interesting paper Dr Gross gives his observations of over 200 cases, and limits the cases in which an operation is suitable Dr Parkes said that he wished to call the attention of the Society to the fact that there is sometimes an anomalous distribution of the arteries to the kidneys He had met two cases in which the arteries entered the kidney at the lower end instead of the hilus, and this should be remembered in cases of nephrectomy, and especially nephrolithotomy Sometimes the renal artery enters the kidney by the two branches

Dr Bogue, in answer to several questions by members of the Society, replied that no vertical incision was necessary, that the diagnosis was positive only after the operation, which was an exploratory one, that the ureter and renal blood vessels were ligated in mass, that in a supposed case where there was a well defined, movable tumor in the abdomen, unaccompanied by pain, pus in the urine with difficult urination, which was relieved by washing out the bladder, if there was a reasonable probability it was a suppurating kidney, he would advise an operation

THE CONTINUOUS CURVE-FORCEPS

Dr E W Sawyer read an interesting and exhaustive paper on the continued pelvic curve in the obstetric forceps, with remarks on forceps in general He defined the perfect obstetrical forceps to be an instrument with which it is practically impossible to injure the mother or fœtus when skillfully used In order that the forceps may be such a harmless extractor, after many years of observation and experience, he had arrived at the following conclusions *First*, that there should be a space of three and one-fourth inches between the compressing surfaces of the blades, when the inner surface of the handles are in contact Any less space will fatally compress the fœtal head The long diameter of the ellipse, bounded by the conjoined grasping curves of the blades, should be five and one-half inches, the distal opening of this ellipse, corresponding to the separation between the tips of the blades, may be three-fourths of an inch, five and one half inches from the blade tips, the opening should be two and one-half inches If these measurements are less, severe injury may result to the fœtus *Second*, in selecting an instrument, a straight edged ruler should be placed at right angles to the long diameter of the blade, to determine if the outer edge of the blade and the border of the fenestra are on the same plane, if not, such an instrument invariably injures the fœtal scalp *Third*, the loose mortise-joint lock, allowing a backward and forward motion of the handles, and thus enabling the obstetrician to properly adjust the forceps to the fœtal head is the only safe, simple and easily operated lock *Fourth*, in compressing the fœtal head, the closest imitation of nature is safest to follow, hence a moment of compression during a pain should be followed by loosening the grasp of the head, which cannot be done with those instruments which admit of the handles being fixed together *Fifth*, the length of the handles should be such as to allow the operator to reserve his forces for difficult traction The rounded space just in front of the lock, admitting of the introduction of a finger, is of special value as a point of traction, when a great degree of compression is not demanded *Sixth*, the blades of the instrument should be of the best steel, at least one fourth of an inch square at the shanks and gradually thinned to about three thirty seconds of an inch at the tips Slighter material is so yielding as to permit the blades to be pulled off the heads *Seventh*, if an index be fixed to the fœtal head, as for example the handles of the forceps, in such a manner as to follow the direction given to the head by the unaided efforts of nature, an irregularly curved line would be described forward and upward which would have its termination, at the moment of the escape of the head, at a point near the umbilicus of the woman This curved line should be the guiding line to the attendant who attempts to reinforce the expulsive force of the uterus with the forceps Dr Sawyer then exhibited a forceps of his own invention, in which the pelvic curve is extended to the ends of the handles, to guide the operator in producing traction in the direction of the curved line above mentioned He claimed that in those cases where the occiput, or sinciput, presents posterior, and it is decided to deliver in this position, this curve will allow the operator to grasp the head with the forceps well forward over the ears without its slipping over the occipital poles

In answer to several objections as to the feasibility of securing a perfect forceps, Dr Sawyer stated that he did not claim his forceps to be perfect, but that he had copied the best features of other forceps, and thinks he has an instrument which will do less injury to the mother or child than any forceps with which he is acquainted He believes it to be absolutely safe for the child, and was not intending to speak of the indications for using forceps, or the manner of their use, but endeavored to incorporate in his paper some points about forceps in general which he had never read or heard taught, and hoped they would be useful to all who wished to approximate as nearly as possible the ideal forceps

DOMESTIC CORRESPONDENCE

RENAL CALCULI

EDITOR JOURNAL AMERICAN MEDICAL ASSOCIATION

Sir —A post mortem examination was made June 5, 1885, on the body of Mrs C , aged 42 years, by Dr L North, who was called to attend the patient during her last illness, which continued about a week Dr Conklin and the writer, who had seen Mrs C in consultation, were also present at the post mortem examination A large calculus, weighing 1,230 grs , and a smaller stone, which weighed 87 grs , were found embedded in the right kidney, together with about six ounces of sanious pus This kidney, with its contents, formed a tumor located about an inch below and two inches to the right of the umbilicus, which could be distinctly mapped out during the life of the patient Inflammation of the kidney, involving the neighboring structures, had finally extended to the greater omentum, and from thence to the ascending and transverse colon, the latter being the principal feature in producing a fatal termination There were two ounces of pus in the left kidney, and a calculus which weighed 367 grs , yet fully 25 grs crumbled away upon removing it, notwithstanding the calculus was very carefully dissected from the kidney My friend Dr North analyzed these calculi according to the table of Dr Bence Jones, and found them composed of oxalate and phosphate of lime—about three fourths of the former and one-fourth of the latter

J F JENKINS, M D

Tecumseh, Mich , *June 15, 1885*

ASSOCIATION ITEMS

PRIZES OF HONOR —At the recent meeting of the American Medical Association, Dr R Harvey Reed, of Mansfield, Ohio, offered the following resolution, which was adopted

Resolved, That a committee of three be appointed by the President, whose duty shall be to devise a system for the awarding of the honors to those who may desire to present papers for prizes of honor in the different sections at the next meeting of this Association, and that said committee report subsequently through the Association JOURNAL

The President of the Association announces that he has appointed the following members as the committee called for by the foregoing resolution : Dr R Harvey Reed, of Mansfield, Ohio, Dr J H Hollister, of Chicago, Ill , and Dr J Morris, of Baltimore, Md

MISCELLANEOUS

SANITARY MEASURES IN CHICAGO —Health Officer DE WOLF, of Chicago, has had $100,000 placed at his disposal for the purpose of improving the sanitary condition of the city It is his intention to inspect 50,000 houses by the middle of August

COCAINE —It has been suggested according to *Gehe & Co 's Handelsbericht*, that the leaves of the horse-chestnut tree (*Æsculus Hippocastanum*) may possibly contain cocaine or some related alkaloid possessing qualities similar to those exhibited by cocaine, this supposition being based upon the botanical relationship between the natural orders to which the plants belong —*The Pharmacist,* June, 1885

LEAD POISONING —It has been found by Dr Edison, of the Health Department of New York, that yellow vermicelli is colored with lead chromate, which is present to an extent representing three grains of metallic lead to each ounce of vermicelli

GERMAN APOTHECARY SHOPS —According to the *Chemiker-Zeitung*, of May 20, 1885, the average of twenty-four German cities gives less than one apothecary shop for every 10,000 inhabitants Only medicines and drugs are sold in German apothecary shops —no patent medicines and other *staple* articles

THE CHOLERA-BACILLUS COMMISSION OF INQUIRY —DR KLEIN has expressed his willingness to assist in the investigation proposed by Mr Cheyne, provided Dr Koch himself takes part in the inquiry

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JUNE 13 1885 TO JUNE 19 1885

Captain J Y Porter, Assistant Surgeon, having been found incapacitated for active service by an Army retiring board, ordered to proceed to his home and report by letter to the Adjutant General of the Army (S O 136, A G O June 15, 1885)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING JUNE 20 1885

Arthur, George, Passed Assistant Surgeon, granted leave of absence for one year, with permission to leave the United States

Deane, C W , Passed Assistant Surgeon, granted leave of absence for three months

Cleborne, C J , Medical Inspector, as member of Medical and Naval Examining Boards, Philadelphia, Pa , June 22, 1885

Lippincott, George C , Passed Assistant Surgeon, detached from temporary duty, Naval Academy, and waiting orders

Mackie, Benj S , Surgeon, as member of Medical and Naval Examining Boards, Philadelphia, Pa , June 22, 1885

Shafer, Joseph, commissioned an Assistant Surgeon, active list, June 12, 1885

OFFICIAL LIST

Of Delegates and Members in attendance upon the Annual Meeting of the American Medical Association in New Orleans, April 28, 29, 30, and May 1, 1885

ALABAMA

State Medical Society —Jerome Cochrane, Albert Goodwin, George A Ketchum, Samuel P Smith, E Burbon Ward

Bullock County Medical Society —Charles Higgs Franklin, Sam Mardis Hogan

Sumter County Medical Society —John C Parham

Walker County Medical Society —Andrew McAdams Stovall

Wilcox County Medical Society —Lucius Ernest Starr

Permanent Members —James M Collier, John P Furniss

By Application —Wm E B Davis

ARKANSAS

State Medical Society —J I Blackburn, D Christian, J A Dibrell, Sr, J A Dibrell Jr, Lorenzo P Gibson, M P Hart, Wm H Hawkins John W Hayes, F Jeffrey, James T Jelks, James W Jones James M Keller W B Lawrence, Daniel A Linthicum, Edward Meek D S Mills, Thomas Edgar Murrell, Z Orto, James A Pipkin, D J Prather, Hugh L Kauth, J S Shibley, Thos J Woods

College of Physicians and Surgeons —Roscoe Greene Jennings

Crawford County Medical Society —Othello M Boarland

Hempstead County Medical Society —A N Carrigan

Little Rock and Pulaski County Medical Society —John Robinett Watter

Philips County Medical Society —D Ellis Byrd

Sebastian County Medical Society —Albert Dunlap

Permanent Member —J A Owens

By Application —Milton C Boyce, Daniel C Carrol, Isaac Folsom, William B Foster, G W Hudson, Amos Jarmun Hughes

CALIFORNIA

State Medical Society —Richard Beverly Cole, Anabel Mcgaughey Stuart

COLORADO

State Medical Society —John W O Connor

DAKOTA TERRITORY

Medical Association —William F Duncan

DISTRICT OF COLUMBIA

Medical Association —Alexander Y P Garnett, John B Hamilton, William Lee, Joseph M Toner

Permanent Member —J H Baxter

FLORIDA

State Medical Society —Robert D Murray, Job E W Smith

Alachua County Medical Society —Robert A Lancaster

Putman County Medical Society —Joseph H Warren

Permanent Members —George W Betton, John P Wall

GEORGIA

State Medical Society —Robert Battey, Wm D Bizzell, Henry F Campbell, Elijah Lewis Connally, Benjamin Robert Dostor, Wm H Elliott, James W Flanders, James Arthur Fort, E C Goodrich, L G Hardman, Wm Abram Love, Thomas M McIntosh, Richard J Nunn, Theophilus O Powell, Everard H Richardson, James Cary Solomon T Frank Walker, Jacob Weichselbaum

Agusta Academy of Medicine —Theodore Lamb

Permanent Members —J W Baily, Robert H Jenkins, Alonzo J Logan, Thomas S Powell

ILLINOIS

State Medical Society —Albert Henry Burr, G M Chamberlin, Edgar P Cook, R W Crothers, Nathan S Davis, Moses Gunn, John H Hollister, Wm Wright Jaggard, Herbert Judd, J P Matthews Lewis L McArthur, Liston H Montgomery, Philip H Oyler, Madison Reece, Arthur Rawley Reynolds, Robert Tilley

Central Illinois Medical Society —W J Chenoweth, Amos Lorin Morris

Iowa and Illinois Central Medical Society —John W Cowden

Southern Illinois Medical Society —James I Hale, John L Hallam, John Thomas McAnally

Adams County Medical Society —Wm A Byrd, Virgil McDavitt, Abbey Fox Rooney, Michael Rooney

Brainard District Medical Society —Merritt Hurst, Faranda J Shipp

Chicago Gynecological Society —Henry T Byford, Charles Caldwell

Chicago Medical Society —A L Baldwin Edmund James Doering, Albert Goldspohn, Ralph N Isham, A Reeves Jackson, John S Marshall, Daniel Thurber Nelson, Harvey P Newman, James H Plecker, Henry J Reynolds, Wm P Verity, George W Webster

Jo Davies County Medical Society —Benj I Crummer

Lake County Medical Society —W M Sweetland

McLean County Medical Society —Wm L Pollock

Military Tract Medical Association —Hiram Nance

Morgan County Medical Association Thomas M Cullimore, I J Pitner

Wabash Valley Medical Association —Mark Rowe

Permanent Members —Lander H Baker, Robert N Barger, John B Felker, Samuel F McDermith, W H McNary, John H Rauch, James I Sullivan

INDIANA

State Medical Society —Orin Aborn, Ferdinand W Beard, Charles Bowman, Elijah S Elder, Vincent H Gregg Thomas B Harvey John H Helm, James I Hibberd, John Sloan, Albert R Tucker

Blackford County Medical Society —C Q Shull

Boone County Medical Society —Mathew H Bonnel, Robert L Jones

Dearborn County Medical Society —M H Harding, George Sutton

Dubois County Medical Society —Toliver Wertz Gershom P Williams

Fayette County Medical Society —Joshua Chitwood

Fountain County Medical Society —Wm C Cole

Hamilton County Medical Society —H S Horr

Jackson County Medical Society —Samuel H Charlton

Madison County Medical Society —Wm P Harter

Marion County Medical Society —Thomas N Bryan, James W Hervey, John I Keegan, L S Todd

Posey County Medical Society —Wm M Holton

Randolph County Medical Society —Nelson T Chenowith, Isaac N Trent

Rush County Medical Society —Wm S Hargrove, Wm H Smith

Wayne County Medical Society —Samuel S Boyd

Whitley County Medical Society —Martin Ireland

Permanent Members—Peter Dryer, T B Harvey, Wm R McMahon, Luther D Waterman, J R Weist

IOWA

State Medical Society —Asa B Bowen, David S Fairchild, Ira K Gardner, Wm H Gibbon, H A Gilman, George F Jenkins, Samuel S Lytle George O Morgridge, S N Pierce, Joseph Emmett Sanson, Milton Granville Sloan, Wm Watson

Bremer County Medical Society —Wm M Barber

Buchanan County Medical Society —Henry G Brainerd

Cedar Valley Medical Society —D W Crouse, W O Richmond

Central District Medical Society —David J Brookings

Des Moines Valley Medical Association —Columbus N Udell

Mitchell County Medical Society —Wm W Blackman

North Iowa Medical Society —Luther Brown

Scott County Medical Society —P M Braechn

Upper Cedar Valley Medical Association —Luther P Fitch

Washington County Medical Society —James Carson Robertson

Permanent Members —Lewis Blanchard, E H Dudley, Homer C Markham, E C Miller, Hiram Irving Nance, Washington F Peck, Allen A Ransom, Nathah Udell, Ira L Welch, John I Whitley, J W Young

KANSAS

State Medical Society —Robert Aikman, Garrett R Baldwin, F M Daily, James A Hopkins, Winfield S Mendenhall, M R Mitchell Charles V Mottram, W L Schenck, D W Stormont, W J Van Eman

Crawford County Medical Society —George W Miller

South Kansas Medical Society —James T Shepard, Oliver Perry Olinger

South East Kansas Medical Society —B F Hepler

KENTUCKY

State Medical Society —Jonathan R Bailey, Benjamin H Blair, B L Coleman, Alexander Crawford Fayette Dunlap, Lawson B Hickman, Joseph A Hodge, James H Letcher, R C McHord, Louis S McMurtry, Joseph Pott Thomas, W H Wathen

Central Kentucky Medical Association —Hawkins Brown

Southern Kentuckey Medical Association —George Beebe, John G Brooks, A T Hobbs, W W Richmond

Permanent Member — Thomas B Greenley

By Application —Hervey McDonald

LOUISIANA

State Medical Society —Thomas J Allen, Richard Hance Day, Wm L Dickson, James W Dupree Claibourne Alex Duval, John B C Gazzo, D Raymond Fox, Owen Palmer Langworthy, Samuel Logan, Christian D Owens, Edward Boyer Price, Thomas B Pugh, Arthur W de Roaldes, Rober dean W Seay, Paul von Seydenwitz, George Theodore Trezevant, William Dee White

Orleans Parish Medical Society —Paul Emile Archinard, Wm G Austin, Oscar Czarnowski, John Pintard Davidson, Felix Formento, Daniel Chemien Holliday, Percival B McCutchon, Rudolph Matas, Fred William Parham

Shreveport Medical Society —David Hall Billin

Permanent Members —Stanford E Chaille, Jas Cronan Egan, Chas Henry, George J Friedrichs, Ernest Sydney Lewis, George Newman Monette, Tobias G Richardson, W H Watkins

By Application —Charles J Bickham, Frank H Brickell, Wm E Brickell, Thomas S Dabney, Andrew G Friedrichs, John G A Devron, Joseph Jones, Stanhope Jones, Geo B Lawrason, J Th L Ch Mentz Schuppert, Edward Taylor Shepard, Edmond Souchon, John M Watkins, Thomas Jefferson Woolf

MAINE

State Medical Society — Thomas Albert Foster, Alonzo Garcelon

Permanent Member —Seth C Gordon

MARYLAND

Medical and Chirurg Faculty —Joseph E M Chamberlaine, John Morris

Allegheny County Medical Society —Thos M Healey

Baltimore Academy of Medicine —Herbert Harlan, W C Van Bibber

Baltimore Clinical Society —John S Lynch

Baltimore Medical and Surgical Society —Wilmer Brinton

By Application —Oscar J Coskery

MASSACHUSETTS

State Medical Society —James Read Chadwick, John C Irish, Henry O Marcy, Asa I Pattee Alexander Doull Sinclair, Jacob L Williams, Arthur Hervey Wilson

Permanent Member — Charles H Shackford

By Application —George Minot Garland

MICHIGAN

State Medical Society —Austin W Alvord, James B Book, Wm Brodie, Carl Brumme, J Henry Carstens Leartus Connor, Louis W Fasquelle, Simon S French Hugh McColl, Geo E Ranney, Horace Tupper, Columbus V Tyler

Detroit Medical and Library Association —Eugene Smith, Henry O Walker

North East District Medical Association —Cyrus M Stockwell, Anson R Smart

Southern Michigan Medical Association —Robert Stephenson

Union Medical Society of Northern Michigan —John Avery, F Josephus Groner

Van Buren County Medical Society —Ezra A Palmer

Wayne County Medical Society —C I Lundy

Permanent Members —Charles W Backus, Harvey Williams

MINNESOTA

State Medical Society —Frederick A Dunsmoor, John F, Fulton, A O Gilman, Thos S McDavitt, John H Murphy

Permanent Members —Geo S French, Charles H Hunter, Alexander J Stone

MISSISSIPPI

State Medical Society —Thos T Beall, Josiah Clinton Brooks, Josiah Chambers Dawson, S R Dunn, Thomas Wen Fullilove, John B Pease, J M Taylor, R S Toombs, J S Walker

Permanent Members —Burnell Alex Duncan, J T Hancock, Jonas Patrick Moore, J A Shackelford, Wm A Taylor, B A Vaughn

By Application —Edward L McGehee

MISSOURI

State Medical Society —T C Boulware, Fred Essig, Willis P King, Eugene R Lewis

Grand River Medical Society —Montgomery Bottom, Tinsley Brown, C C Leeper, Edwin Van Mole

Hannibal Medical Society —D Howell Shields

Jackson County Medical Society —Flavel B Tiffany

Kansas City Medical Society —James J Choate Jessie W Johnson, Thomas B Lester, Edward W Schauffler, John Henry Thompson

Lewis County Medical Society —Robert J Christie

Linton District Medical Society —Anthony W Graham

Moberly District Medical Society —Benj G Dysart, Tilly Alexander Martin

Rolla District Medical Society —J Turner Coffee, W Arthur Metcalf

St Joseph Medical Society —Jacob Geiger

South East Medical Association —J W Cannon, Lemuel T Hall

South West Medical Society —Christopher C Clements

St Louis Medico Chirurg Society —George J Engelman, Wm Carr Glasgow, Herman Tuholske

St Louis Medical Society —LeGrand Atwood, B M Hypes, Henry H Mudd, P Gervais Robinson, J M Scott, F W Wesseler

Permanent Members —George Halley, Alexander J Mullen, A B Sloan

By Application —W F Grimstead, John A Mann, David LeMay Mitchell

NEBRASKA

State Medical Society —F G Fuller, Alice Emily Huff, Samuel D Mercer, L F McKenna, Richard C Moore Wm S White

Permanent Members —Wm M Knapp, Melville W Stone

By Application —Charles A Wilson

NEW HAMPSHIRE

State Medical Society —John W Parsons

NEW JERSEY

State Medical Society —Wm Pierson, Isaac N Quimby

Permanent Member —B A Watson

NEW YORK

State Medical Association —Edward Ames, Henry D Didama, J D Dunning, Ellsworth Eliot

New York Academy of Medicine —L Duncan Bulkley, Francis V White

West Chester County Medical Society — Champion H Judson

Permanent Members —Charles C F Gay, W W Potter, James R Taylor, Hiram Wiggins, Cornelius C Wyckoff

NORTH CAROLINA

State Medical Society —Thomas D Haigh, Newson J Pittman

Edgecombe County Medical Society —George Lewis Wimberley

Permanent Member—Charles James O'Hagan

OHIO

State Medical Society—Henry J Donahoe, Richard P Evans, Frank C Larimore, Ephraim J McCollum, Jonathan Morris, P P Pomerene, Caleb R Reed, R Harvey Reed, John C Reeve, A C Scott

Central Medical Society—Norman Gay

Cincinnati Academy of Medicine—John L Cleveland, W W Dawson, Sheridan C Heighway, Edward Sydney McKee, Joseph Ransohoff, James T Whittaker, E Gustav Zinke

Clermont County Medical Society—Isaac Redrow

Clinton County Medical Society—S B Lightner

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Iowa County Medical Society—Wm L Tallman

North Western Medical Society—Edward F Eldridge

Verein Deutscher Aerzte in Milwaukee—Nicholas Senn

North Western Inter State Medical Association (Wisconsin and Minnesota)—Charles Alexander

UNITED STATES ARMY

Medical Department—John S Billings, Henry McElderry, Joseph R Smith

UNITED STATES NAVY

Medical Department—David Kindleberger, George Peck

U S MARINE HOSPITAL SERVICE

John Godfrey

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